more restrictive Nevada ALRs, the Nevada-permitted facilities continue to meet the regulatory limits.

In the event that permit limitations are exceeded, a site-specific evaluation must be conducted by the permittee to assess the need for additional process components or site monitoring. Depending upon site-specific conditions, the permittee may be required to institute a mitigation procedure(s) to bring the process component into compliance with the permit limitation. If the permittee can demonstrate that the permit violation will not result in degradation to the waters of the State and the permittee complies with new monitoring levels and mitigation procedures, the Bureau may allow the continued use of the non-compliant process component. If a permit limitation for a leak detection system is exceeded, the Bureau does not intend to use thepermit limitation as a means of halting beneficiation or assessing penalties, except in cases where the design criteria is no longer reasonably met, the permittee has been negligent, or the permittee is not responsive in taking proper corrective action.

When a liner is included as part of the waste rock facility design, soil liners must have a minimum thickness of 12 inches and be compacted inlifts which are no more than 6 inches thick. NAC 445A.438(1). A soil liner must have a permeability of not more than that exhibited by 12 inches of $1x10^{-7}$ centimeters per second (cm/sec) material. Id. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of $1x10^{11}$ cm/sec. NAC 445A.438(2). The Division is requiredto review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner including the type of foundation, slope and stability; the over liner protection and provisions for hydraulic relief; the load and means of applying load; the compatibility of a liner with waste rock drainage; the complexity of the leak detection and recovery systems (if present); the depth from the surface to all groundwater; and the liner's ability to remain functionally competent until permanent closure has been completed. NAC 445A.438(3)(a-g).

A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. NAC 445A.439 A summary of the quality control data must be submitted to the Department with the as-built drawings. Id.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portionof a mining operation that may release pollutants. See also, NAC 445A.359 and 445A.378. The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Other authorities and resources that are considered include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local

county/municipal ordinances; site-specific conditio ns; and WPCP requirements and limitations.

(vi) CONCURRENT OR SEQUENTIAL RECLAMATION OF HEAP AND DUMP LEACH PADS PRIOR TO FINAL CESSATION OF OPERATIONS AND CLOSURE

Requirements for concurrent or sequential reclamation of mined areas as they become available prior to final cessation of operations and closure.

NAC 445A.446(1)(c) states that the permanent closure of a facility must be initiated when the end of the design life of that process component is reached.

The closure and stabilization requirements pertain to process and non-process components (solid and liquid process mine wastes) s uch as heap leach pads, tailings impoundments, pits, waste rock dumps, ore stockpile s, and any other associated mine components that, if not properly managed during operation and closure, could potentially lead to the degradation of waters of the State. NAC 445A.446. A mining facility operator/permittee is required to submit a Tentative Permanent Closure Plan at the time of application for a WPCP. NAC 445A.398(5). Sources which have not been classified as process components such as waste rock disposal faci lities, must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be closed in accordance with the State Handboo k of Best Management Practices (Sections 9-1 through 9-6) prepared pursuant to NAC 445A.336. NAC 445A.447(3).

A Final Permanent Closure Plan must be submitted to the Department two years prior to the anticipated closure of a mine site. NAC 445A.44 7(2). The Division has prepared a guidance document "Preparation Requirements and Gui delines for Permanent Closure Plans and Final Closure Reports" which delineates a permittees responsibilities and Division requirements with respect to permanent closure. This plan must provide closure goals and a detailed methodology of activities necessary to achieve a level of stabilization of all known and potential contaminants at the site . The Final Permanent Closure Plan must include a detailed description of all proposed monitoring that will be conducted to demonstrate how the closure goals are being met.

Following the completion of all closure related act ivities; a Final Closure Report must be submitted to the Bureau summarizing all completed c losure related activities. This document should contain all information necessary for the operator to demonstrate to the Department that the completed closure activities, p er process and non-process component, will ensure that waters of the State wil l not be degraded. This report must include a proposal for post-closure monitoring for an initial period of time not less than five (5) years in order to provide additional suppo rting data that stabilization has truly been achieved.

The Request for Final Closure is made following the completion of the post-closure monitoring period. The request should contain all post-closure monitoring information and clearly demonstrate stabilization. Upon the successful demonstration of stabilization, the Department would consider the mine site to be in final closure, retire the WPCP, and eliminate all NAC 445A fee requirements.

Other authorities and resources that are considered include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

NAC 519A.285 describes the time when reclamation must be initiated and completed and the process for requesting an extension of time. If affected land cannot practicably be reclaimed concurrently with an exploration projector mining operation, reclamation must be initiated within 2 years after completion or abandonment of the exploration project or mining operation; within 3 years after a temporary closure of an exploration project or mining operation; or as required by the BLM, the USFS or another federal land management agency. NAC 519A.285(1)(a-c). The Division may grant one or more extensions of the time when reclamation must begin if the operator of an exploration project or mining operation demonstrates that a reasonable likelihood exists that the project or operation will resume, based on a consideration of factors including, but not limited to: The presence of additional mineralization of the commodity being mined or other commodities in commerce; Historical fluctuations in the value of the commodity being mined or other commodities present if they can be mined using the same disturbances; The design life of any beneficiationprocess components existing at a mining operation; and If the closure was caused because oflitigation. NAC 519A.285(2)(a-d). Each extension is for a 3-year period. NAC 519.285(2). Once initiated, final reclamation activities must be completed as set forth in an approved plan for reclamation, unless the exploration project or mining operation is reactivated. NAC 519A.285(3). The contents of a plan for reclamation for mining operation requires a proposed schedule of the time for initiation and completion of activities for reclamation. NAC 519A.270(6).

NAC 519A.345 states that the Division may, if appropriate, require an operator of a mining operation to reclaim heaps from leaching by regrading to enhance structural stability, promote runoff, reduce infiltration and control erosion; covering with waste rock, topsoil or growth medium; revegetation; process fluid stabilization; and diverting run-on.

RESPONSE CATEGORY 5—TAILINGS [Proposed 40 CFR 320.63(a)(v)]

GENERAL COMMENTS

On a site-specific basis the State of Nevada meetsor exceeds all of the requirements listed for the tailings category.

Nevada WPC regulations do not have specific FOS req uirements for tailings; however, the Department does utilize design criteria for dams and other water impounding devices established by the Nevada Division of Water Resources. The design of a tailings impoundment differs greatly and depends on the type of impoundment, local geolo gy, size of the structure, seismic zone, downstream hazard, upstream conditions etc. Ultimately, the design engineer and permittee are responsible for constructing and operating a safe s tructure and the review process in no way creates a warranty by the State Engineer for the ad equacy of the design. Analyses considered in dam design pursuant to NAC 535.210(3) include a sta bility analysis with an FOS for static conditions not less than 1.3 and an FOS for pseudos tatic conditions not less than 1.1, utilizing a peak ground acceleration with a defined seismic eve nt with a maximum 10% probability of exceedance in 50 years. However, if site-specific conditions warrant higher minimum stability requirements, these requirements are incorporated i nto the WPCP for the facility. In addition, a determination of foundation suitability (e.g., liqu efaction potential, ability to support the load/settlement, fault traces or bedrock fractures, horizontally contiguous zones of high permeability, and embankment settlement); seep anal ysis; tailings deposition; embankment material physical properties; stormwater diversion, etc. are also considered when designing the tailings impoundment.

Currently, process components at Nevada mine facili ties must be constructed, at a minimum, to contain a 25-year, 24-hour storm event and to withs tand a 100-year, 24-hour storm event. the Division may require additional storm event capacit y based on site-specific factors such as proximity to surface water bodies, depth to groundw ater, and proximity to population. In Nevada's mine closure guidance, the Division recomm ends that facilities are constructed to withstand a 500-year, 24-hour event. The Division is considering a change to Nevada's closure regulations to require that closed facilities are d esigned, at a minimum, to contain a 500-year, 24-hour storm event if containment is necessary and withstand the erosional effects of a 500-year, 24-hour storm event.

(i) SAFETY AND PREVENTION OF PUBLIC ACCESS TO TAILINGS IMPOUNDMENTS

A plan to address public safety by prevention of public access by means of security fencing, or other effective methods.

NAC 519A.390 requires the use of a barricade, fence , permanently anchored seal, or backfill to secure dangerous conditions at a mine. This requirement applies to surface or underground mines as well as any development, benefciation plant, mill, smelter, refinery or other facility used to treat or reduce any miner al commodity, whether or not its is contiguous to an area where exploitation or extract ion of mineral commodities occurs. NAC 445A.447 requires submittal of a Final Plan for Permanent Closure for any portion of a mining operation that may release pollutants (NAC 445A.378 and 445A.359), including but not limited to slag piles and other process com ponents. Such a plan may include a barricade, fence, and/or signage, in addition to actions focused on chemical stabilization.

The Nevada guidance document titled, "Preparation R equirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be desig ned to withstand the 24-hour, 500-year storm event.

NAC 519A.260(1) requires a plan for reclamation consider the pre and post-mining use of the land. NAC 519A.270(16) requires a description of any necessary monitoring or maintenance of any fencing or signs.519A.345.9(c) requires construction and maintaining berms fences or other means of restricting access.

Other authorities and resources that are considered for preventing public access include the State of Nevada Handbook of Best Management Pra ctices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific co nditions; and WPCP requirements and limitations.

(ii) TAILINGS IMPOUNDMENT STABILITY DURING ACTIVE OPERAT IONS AND DURING AND FOLLOWING CLOSURE

A plan to regrade surface during closure to a stable configuration that prevents ponding and promotes the conveyance of surface water off th e unit, and that requires closure of all tailings impoundments and stacks considered to be critical structures to be designed for a long-term static factor of safety of 1.5 or greater and all non-critical structures to be designed for a long-term static fa ctor of safety of 1.3 or greater; and requires that the units being closed be designed fo r a factor of safety of 1.1 or greater under pseudostatic analysis. The plan must also pro vide for a stability analysis to be conducted for the unit and include evaluation for s tatic and seismic induced liquefaction.

Nevada WPC regulations do not specifically state a minimum FOS for tailings impoundments; however the Department does utilize d esign criteria for dams and other water impounding devices established by the Nevada Division of Water Resources. The design of a tailings impoundment differs greatly depending on the type of impoundment, local geology, size of structure, seismic zone, dow nstream hazard, upstream conditions etc. Ultimately the design engineer and permittee are responsible for constructing and operating a safe structure and the review process i n no way creates a warranty by the State Engineer for the adequacy of the design. Anal yses considered in dam design pursuant to NAC 535.210(3) include a stability anal ysis with an FOS for static conditions not less than 1.3 and an FOS for pseudostatic conditions not less than 1.1, utilizing a peak ground acceleration with a defined seismic event wi th a maximum 10% probability of exceedance in 50 years. However, if site-specific conditions warrant higher minimum stability requirements, these requirements are incorporated into the WPCP for the facility (e.g., WPCP Part I.G). In addition, a determinatio n of foundation suitability (e.g., liquefaction potential, ability to support the load /settlement, fault traces or bedrock

fractures, horizontally contiguous zones of high permeability, and embankment settlement); seep analysis; tailings deposition; embankment material physical properties; stormwater diversion, etc. must also be considered when designing the tailings impoundment.

NAC 445A.397 requires that the engineering design report include an evaluation of structural stability. Nevada WPC regulations do not distinguish between critical and non-critical structures at mine facilities. Nevada does not differentiate between critical and non-critical structures on a site-specific basis and sets stability requirements based on site-specific needs and criteria.

A WPCP issued by the Division also includes a standard provision (Part I.I.) that requires the Permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of: Deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

NAC 445A.398 requires that a permit application include the proposed operating plans for the facility. The plan must include a description and the range of operating conditions for which the components were designed; a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. NAC 445A.396 requires that a permit application must include the results from testing samples from the facility's mine site which are representative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to require a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste rock management plan, which details the placement and management of benign and chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation.

NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each

surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id. However, the application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

The program to monitor the site of a facility must be designed to monitor the quality of all ground and surface water which may be affected by the facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation of the facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the

groundwater, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

A WPCP issued by the Division also includes a standard provision (Part II.B.2.E.) that provides a regulatory mechanism for the Permittee to submit to the Division for review and approval of revised monitoring plan and sampling protocols annually. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

NAC 445A.437(1) requires that a tailings impoundment utilize a system of containment equivalent to 12 inches of recompacted native, imported, or amended soils which have an in place recompacted coefficient of permeability of no more than $1x10^{-6}$ cm/sec, or competent bedrock or other geologic formations underlying the site which has been demonstrated to provide a degree of containment equivalent to 12 inches. An alternate level of containment may be required by the Department for all of the tailings impoundment or for a portion thereof after considering the anticipated characteristics of the material to be deposited, the characteristics of the soil and geology of the site, the degree to which the hydraulic head on the impoundment liner is minimized, the extent and methods used for recycling or detoxifying fluids, pond area and volume, the depth from the surface to all groundwater, and the methods employed in depositing the impounded material. NAC 445A.437(2)(a-g).

A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. NAC 445A.439 A summary of the quality control data must be submitted to the Department with the as-built drawings. Id.

Mine facilities must be monitored for up to 30 years following the completion of permanent closure actions to prevent degradation of waters of the State. NAC

445A.446(2). The closure and stabilization requirements pertain to process and non-process components (solid and liquid process mine wastes) such as heap leach pads, tailings impoundments, pits, waste rock dumps, ore stockpiles, and any other associated mine components that, if not properly managed during operation and closure, could potentially lead to the degradation of waters of the State. NAC 445A.446. A mining facility operator/permittee is required to submit a Tentative Permanent Closure Plan at the time of application for a WPCP. NAC 445A.398(5). Sources which have not been classified as process components such as waste rock disposal facilities, must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be closed in accordance with the State Handbook of Best Management Practices (Sections 9-1 through 9-6) prepared pursuant to NAC 445A.336. NAC 445A.447(3).

A Final Permanent Closure Plan must be submitted to the Department two years prior to the anticipated closure of a mine site. NAC 445A.447(2). The Division has prepared a guidance document "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports" which delineates a permittees responsibilities and Division requirements with respect to permanent closure. This plan must provide closure goals and a detailed methodology of activities necessary to achieve a level of stabilization of all known and potential contaminants at the site. The Final Permanent Closure Plan must include a detailed description of all proposed monitoring that will be conducted to demonstrate how the closure goals are being met.

Following the completion of all closure related activities; a Final Closure Report must be submitted to the Bureau summarizing all completed closure related activities. This document should contain all information necessary for the operator to demonstrate to the Department that the completed closure activities, per process and non-process component, will ensure that waters of the State will not be degraded. This report must include a proposal for post-closure monitoring for an initial period of time not less than five (5) years in order to provide additional supporting data that stabilization has truly been achieved.

The Request for Final Closure is made following the completion of the post-closure monitoring period. The request should contain all post-closure monitoring information and clearly demonstrate stabilization. Upon the successful demonstration of stabilization, the Department would consider the mine site to be in final closure, retire the WPCP, and eliminate all NAC 445A fee requirements.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants. See also, NAC 445A.359 and 445A.378.

The Nevada guidance document titled, "Preparation R equirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be desig ned to withstand the 24-hour, 500-year storm event.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Pra ctices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific co nditions; and WPCP requirements and limitations.

Under NAC 535.200(1), a person is required, pursuant to NRS 535.010, to notify the State Engineer before he or she constructs reconstructs or alters a dam and must submit to the State Engineer a description of all work that is pr oposed. The State Engineer will review the notice and its accompanying materials and, not later than 30 days after receiving the notice, will respond in writing stating the deficie ncies, if any, in the submission that must be cured, that approval of the plans and specificat ions pursuant to subsection 2 of NRS 535.010 is required before construction may begin, or that no such approval is necessary. NAC 535.200(2)(a-c). A person who files a completed application for approval of plans for a dam pursuant to NAC 535.210 or 535.220 shall be deemed to have complied with these requirements. NAC 535.200(3).

NAC 535.210 sets-forth the requirements of an appli cation seeking approval of plans for a dam. A person must submit the application eithe r in person or by mail. NAC 535.210(1). Each element of the plans and specific ations must be prepared by or under the supervision of a professional engineer and must bear the wet stamp and signature of the professional engineer. Id. The design report m ust include, without limitation, a description of the proposed structure and discussio ns of: the design approach, a geotechnical report, specifications for constructio n and an adequate description of the proposed work, calculations regarding strength or s tability incorporating a FOS. See generally, NAC 535.210.

A person must also submit an application for approval of plans for decommissioning of a dam. NAC 535.220(1). The application must be submi tted in person or by mail. Id. Each element of the plans and specifications must be prepared by or under the supervision of a professional engineer and must bear the wet stamp a nd signature of the professional engineer. Id.

Under NAC 535.250, the plans for a dam or reservoir must for seismic activity. To obtain the approval of the State Engineer pursuant to NRS 535.010, the plans and specifications must, in addition to all other applicable requireme nts, demonstrate to the satisfaction of the State Engineer that the dam is able to accommodate an earthquake or other extreme motion event without the failure of the dam or any other unintended release of water. NAC 535.250(1). The applicant must calculate the s eismic response to a maximum

credible earthquake of a dam and its foundation, including, without limitation: potential liquefaction, loss of material strength, settlement; ground displacement, and wave action due to landslide or seiche. NAC 535.250(2). Any numeric analysis of the seismic response must be calculated for the normal maximum loading condition with steady-state seepage. Id. If a pseudo static stability analysis is performed for an earthen embankment, the calculations must be accompanied by a description of the assumptions used in deriving the seismic coefficient used in the calculations. Id. However, these additional requirements do not apply to a dam classified as low hazard or to a small earth dam classified as significant hazard, if the applicant demonstrates to the satisfaction of the State Engineer that the: static slope stability FOS is 1.5 or greater under normal maximum loading with steady-state seepage, peak site acceleration is not greater than 6.5 feet per second squared, materials used in the foundation and embankment are not prone to liquefaction, and slope of the embankment is, if earthen, not greater than a horizontal-to-vertical ratio of 3:1, or, if free-draining rock fill, not greater than a horizontal-to-vertical ratio of 2:1. NAC 535.250(3)(a-d).

NAC 535.280 establishes dam (e.g., tailings impoundment) abandonment procedures and states that an owner shall not abandon a dam except by decommissioning pursuant to NAC 535.220 or through a transfer pursuant to NAC 535.380.

NAC 535.290(1) states that a person whose application for approval of plans for the decommissioning of a dam has been approved by the State Engineer may apply for the closure of the file associated with the dam. The State Engineer will close a file if: the dam has been breached intentionally or through mishap; the dam and impoundment have been decommissioned, the dam was not built, or the applicant withdraws the application for approval of plans for a dam. NAC 535.290(2)(a-d). If the State Engineer closes the file, the dam may not be returned to service and no water may be impounded behind the dam represented by that file until an owner complies with all applicable sections of chapter 535 of the NRS and NAC. NAC 535.290(3).

To obtain an approval to impound, including a temporary approval to impound, an owner or operator of a dam classified as high hazard or significant hazard must submit to the State Engineer an emergency action plan for the dam. NAC 535.320(1). An owner or operator of a dam classified as high hazard or significant hazard for which an approval to impound has been granted as of October 24, 2014, or that otherwise is impounding water or is capable of impounding water as of October 24, 2014, must submit to the State Engineer an emergency action plan for the dam. NAC 535.320(2). An emergency action plan submitted pursuant to this section must follow the format presented by the Federal Emergency Management Agency in the Federal Guidelines for Dam Safety: Emergency Action Planning for Dams (FEMA Publication No. P-64) or an equivalent format approved by the State Engineer. NAC 535.320(3)(a).

The State Engineer will inspect or require an owner to inspect a dam classified as high hazard not less than once a year, a dam classified as significant hazard not less than once every 3 years, any dam that is the subject of a complaint submitted to the State Engineer which alleges that the reservoir created by the dam is in an unsafe condition or is being used in an unsafe manner. NAC 535.360(1)(a-c). An inspection by an owner required by the State Engineer pursuant to this paragraph must be completed not later than the date specified by the State Engineer, and any other dam not less than once every 5 years. NAC 535.360(1)(c-d). The State Engineer may at any time inspect, or require an owner to inspect, a dam under construction to determine the condition of any element relevant to the safety of the dam. NAC 535.360(2). If a permittee fails to complete all required repairs in a reasonable time or the State Engineer concludes that a hazardous condition exists that may threaten life or property, the State Engineer may order the operator to lower, drain or cease diverting water into the reservoir until the operator satisfies the State Engineer that the repair has been completed or the condition has been rectified. NAC 535.360(4). If the State Engineer determines, pursuant to subsection 3 of NRS 535.030, that immediate remedial action is necessary to safeguard life or property, the State Engineer will take such action. NAC 535.360(5).

NAC 535.370(1) requires that each owner and each permittee operate and maintain his or her dam and works appurtenant to the dam in a safe manner and in accordance with all applicable permits, laws and regulations; take all necessary action allowed by law to prevent the failure of the dam; notify the State Engineer and local responsible authorities of any problem or unusual event at the dam; modify his or her dam to meet changing downstream hazard conditions or upstream watershed modifications; and maintain an operation manual and log for each dam that he or she owns or operates.

Other authorities and resources that are considered for tailings impoundment management include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

NAC 519A.345(5)(a) requires an operator of a mine to regrade a tailings surface to promote storm runoff and reduce infiltration using the State policy requirement for a minimum 2.0 foot ET earth cover depth for the closure of a process facility. An engineered designed spillway is required to convey water off the Tailings facility. NAC 519A.345(5)(e). Nevada's very arid climate combined with the ET cover depth has effectively been demonstrated in reducing meteoric infiltration rates to less than 5%. The ET cover material is salvaged growth medium material (or suitable overburden) which was stockpiled nearby during the construction phase as required in the reclamation plan for approval of the reclamation permit.

The SRCE program has a specific Tailings module to calculate the ET cover volume, placement and revegetation costs (including the impoundment slope). A designated

environmental scientist, in cooperation with the Bureau Reclamation Branch Professional Engineer, review the 6-month IFM cost estimate for the facility, and the use of the Division's newly developed TIDE program to evaluatethe Tailings solution drain down rate period and the associated PFCE program. The PFCE uses the TIDE timeframe to determine inputs for labor while pumping and evaporating solu tion and the electrical costs for the pumps and evaporators to provide for process fluid management reduction to achieve passive closure of the facility. The cost for rental pumps and the purchase of evaporator(s) are included along with the cost to develop a closu re plan in the case that an operator does not have an approved plan submitted.

The IFM is a required 6-month period using site-spe cific requirements to calculate a 6-month cost for 24/7 labor, rental pumps and electri cal power costs for the re-circulation of process solution to prevent a reclaim pond overf low. IFM provides a conservative timeframe until such time that a government agency can secure the posted surety bond amount in the case an operator fails to perform.

(iii) TAILINGS IMPOUNDMENT STORMWATER AND SEDIMENT MANAGE MENT DURING ACTIVE OPERATIONS AND DURING AND FOLLOWING CLOSURE

A plan for the management of all stormwater and sed iment generated during operations and during and following closure. For ex isting units, the plan must provide for permanent stormwater conveyances, ditches, chan nels and diversions designed to convey the peak flow and ponds and other collection devices designed to store the volume generated during a 24-hour period by a 100-y ear return interval storm event. For unit that become authorized to operate after [i nsert the effective date of the Final Rule], the plan must provide for controls designedto store the volume generated during a 24-hour period by a 200-year return interval storm event.

NAC 445A.398 requires the submittal to the Department of the proposed operating plans for the facility for review and approval. The plans must include a description and the range of operating conditions for which the components we re designed and a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids.

NAC 445A.396 requires that a permit application mus t include the results from testing samples from the facility's mine site which are rep resentative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to r equire a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste rock management plan, which details the placement a nd management of benign and chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation".

NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.424(1)(b) prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id. However, the application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all

accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must takeinto consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

General Mining Stormwater Permit (NVR300000) issued by the Department authorizes stormwater discharges associated with Standard Industrial Classification (SIC) 10 as derived from Category iii (shown above), defined under 40 CFR §122.26(b)(14) and all construction-related activities as defined by 40 CFR § 122.26 (b)(14)(x) and (b)(15) at mine sites (including exploration, development and reclamation activities). Facilities that are authorized under NPDES Permit NVR300000 must submit a new or SWPPP to the Department within 60 days of the effective date of the permit or for new dischargers within 30 days of the submitted Notice of Intent to discharge. SWPPPs are available for inspection at the project site or operation covered by this permit. The purpose of the SWPPP is to guide the identification of stormwater pollution sources and the reduction of their impacts, and otherwise lead to compliance with the conditions of this permit. Each of the SWPPP elements must be revised as necessary to maintain accuracy if there are changes in design or construction of the project orif the SWPPP is found to be insufficient.

The Permittee shall make SWPPPs available upon request to the State or local agency approving sediment and erosion plans, grading plans, and stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site. A copy of the SWPPP that is kept on the mining site or made locally available must be provided to the Department for review at the time of an on-site inspection.

The conditions set in the General Mining Stormwater Permit language are the minimum requirements to maintain and implement an effective stormwater program consistent with U. S. EPA rules (Title 40 of the Code of Federal Regulations Part 122). BMPs are approved by the U.S. EPA for use in stormwater permits.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants, including but not limited to open pits and pit lakes. See also, NAC 445A.359 and 445A.378, The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Mine facilities must be monitored for up to 30 years following the completion of permanent closure actions to prevent degradation of waters of the State. NAC 445A.446(2). NAC 445A.433 establishes the minimum design criteria for process components at mine facilities. This regulation requires these components to remain fully functional and fully contain all process fluids including all accumulations from a 24-hour storm event with a 25-year recurrence interval. NAC445A.433(1)(d). The minimum design criteria for process components also require the ability to withstand a 24-hour storm event with a 100-year recurrence interval. NAC 445.433(1)(c). The Division has the discretion to require addition storm capacity based on site-specific factors such as proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(d)(1-3) In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that all closure components be designed to withstand run-off from a 24-hour storm event with a 500-year recurrence interval.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

To obtain the approval of the State Engineer pursuant to NRS 535.010, the plans and specifications for a dam must, in addition to all other applicable requirements, demonstrate to the satisfaction of the State Engineer that: the dam and reservoir are able to accommodate the inflow design flood for the tributary watershed without the failure of the dam or any other unintended release of water. NAC 535.240(1)(a). The inflow design flood selected is appropriate given the intended purpose, hazard classification and size of the dam. NAC 535.240(1)(b). For the purposes of this section, the inflow design flood used for design purposes must not be less than: a probable maximum flood, if the dam: is classified as high hazard or is a large dam and classified as significant hazard, or lacks one or more spillways; a flood whose annual chance of exceedance is 0.1 percent, if the dam is a small or medium dam and is classified as significant hazard; a flood whose annual chance of exceedance is 1 percent, for all other dams. NAC 535.240(2)(a-c). However, the State Engineer will approve plans that use an inflow design flood which is

less than those set-forth above if the applicant provides an incremental damage analysis that demonstrates, to the satisfaction of the State Engineer, that a lesser event is appropriate. NAC 535.240(3). An applicant may use one or more watershed diversion structures in lieu of spillways for the protection of a dam embankment so long as: the impoundment created by the embankment so protected is temporary and the diversion structures are designed to accommodate the greater of the inflow design flood or five times the expected life of the impoundment. NAC 535.240(4)(a-b). A dam must have freeboard adequate to prevent overtopping by wave run-up and reservoir fetch above the storm surcharge elevation. NAC 535.240(5). The adequacy of the freeboard must be demonstrated by evidence satisfactory to the State Engineer in the form of: a wave run-up and reservoir fetch calculation or proof that the freeboard is not less than 3 feet above the storm surcharge elevation. NAC 535.240(5)(a-b). "Storm surcharge elevation" means the elevation that the water surface would reach if the inflow design flood of a dam were added to a reservoir that is at its maximum conservation elevation. NAC 535.240(6).

The SRCE program includes a Diversion Ditch and Sediment pond calculation module for site-specific construction inputs that can account for a 24-hour period, 200-year storm event. The module incorporates the reclamation costs based upon the required design dimensions using an excavator for diversions and a dozer to build sediment control ponds and the re-seeding costs for long-term stability. The module has the ability to accept design criteria changes based upon an engineer's professional judgment or any regulatory change.

(iv) TAILINGS IMPOUNDMENT SEEPAGE AND MANAGEMENT AND TREATMENT DURING ACTIVE OPERATIONS AND DURING AND FOLLOWING CLOSURE

A plan for the minimization, prevention, or collection and treatment of discharges and/or seepage, based on site hydrology and water quality characterization information, that provides for a cover system of, at a minimum, a store and release earthen cover system with a thickness of at least twelve inches and, if necessary, additional source controls or capture and treatment at closure, all of which meet a minimum 200-year life design criteria. If seepage water quality is not expected to meet applicable water quality standards, the plan must provide for:

(A) Implementation of an engineered cover system designed to achieve at least a 95 percent reduction in annual net-percolation based on the long-term average and reduce seepage discharges to meet applicable water quality standards;

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b).

NAC 445A.424(1)(b) prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the water quality standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.431 requires that upon termination of the active use of a tailings impoundment, representative samples of the material deposited in the impoundment must be collected and characterized. The tailings must be stabilized during the final closure of a facility so as to inhibit the migration of any contaminant that has the potential to degrade the waters of the State.

NAC 519A.345(5)(a) requires an operator of a mine to regrade a tailings surface to promote storm runoff and reduce infiltration using the State policy requirement for a minimum 2.0 foot ET earth cover depth for the closure of a process facility. An engineered designed spillway is required to convey water off the Tailings facility. NAC 519A.345(5)(e). Nevada's very arid climate combined with the ET cover depth has effectively been demonstrated in reducing meteoric infiltration rates to less than 5%. The ET cover material is salvaged growth medium material (or suitable overburden) which was stockpiled nearby during the construction phase as required in the reclamation plan for approval of the reclamation permit.

(B) A capture and treatment system designed to achieve at least a 95 percent capture efficiency and meet applicable water quality standards; or combination of an engineered cover system and a capture and treatment system to achieve at least a 95 percent reduction in discharged load and meet applicable water quality standards, or

(C) A solution containment system to assure seepage flows are collected, contained, conveyed, and treated to achieve at least a percent reduction to meet applicable water quality standards.

In areas where annual evaporation exceeds annual pr ecipitation, a process component must achieve zero discharge and all sourc es must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility willnot degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year r ecurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrenc e interval. NAC 445A.433(1)(c),(d). The Department has the option o f requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). Contingency plans for managing process contaminated flows in ex cess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

NAC 445A.424(1)(b) prohibits a mine facility from d egrading groundwater to the extent that a state or federal drinking water stand ard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from deg rading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not e xpected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degrada tion and meet the water quality standards per NAC 445A.424. Such a plan ma y include a capture and treatment system (however, the capture efficiency i s not dictated by regulation; only the resultant water quality is), or another me thod, such as elimination of influent water or chemical stabilization of the sou rce material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.437(1) requires that a tailings impoundmen t utilize a system of containment equivalent to 12 inches of recompacted native, imported, or amended soils which have an in place recompacted co efficient of permeability of no more than $1x10^{-6}$ cm/sec, or competent bedrock or other geologic for mations underlying the site which has been demonstrated to provide a degree of containment equivalent to 12 inches. An alternate l evel of containment may be required by the Department for all of the tailings impoundment or for a portion thereof after considering the anticipated character istics of the material to be deposited, the characteristics of the soil and geol ogy of the site, the degree to which the hydraulic head on the impoundment liner i s minimized, the extent and methods used for recycling or detoxifying fluids, pond area and volume, the depth

from the surface to all groundwater, and the methods employed in depositing the impounded material. NAC 445A.437(2)(a-g).

The Division may, if appropriate, require an operator of a mine to reclaim dams for tailings ponds by: covering with waste rock, topsoil, or growth medium; revegetation; and rendering the dam incapable of storing any mobile fluid in a quantity which could pose a threat to the stability of the dam or to public safety. NAC 519A.345(4)(a-c). The Division may also reclaim impoundments for tailings by: regrading to promote runoff and reduce infiltration; covering with waste rock, topsoil, or growth medium; revegetation; process fluid stabilization; and diverting run-on. NAC 519A.345(5)(a-e).

NAC 519A.345(5)(d) requires an operator of a mine to provide for the process fluid stabilization of a tailings facility. Most tailings facilities have an existing reclaim process pond at the toe of the tailings facility for operational drain down. The SRCE program has a module to calculate the closure costs of a double lined reclaim process ponds to include liner cutting and folding with the associated backfill with the appropriate equipment and labor costs for process ponds that may not be needed for process fluid stabilization closure.

To insure containment of the tails passive drain down solution rate, the use of existing double lined process ponds are converted to ET Cells or E Cells. The Bureau has developed a SRCE user page Closure pond module to calculate the cost of converting an existing process pond to an ET or EC ells to contain the passive seepage drain down of a Tails facility (approximately $100,000/per pond acre). The User page Closure pond module has the ability to calculate the reclamation costs for an entirely new constructed closure pond (approximately $200,000/per pond acre) if determined that a larger pond size is required to match the passive closure drain down volume. The User page Closure pond module calculated costs have an input cell linked to the SRCE summary page to include it in the total reclamation amount and make it part of the calculated percentage government in-direct administration costs.

The SRCE program has a specific Tailings module to calculate the ET cover volume, placement, and revegetation costs (including the impoundment slope). A designated environmental scientist, in cooperation with the Bureau's Reclamation Branch Professional Engineer, review the 6-month IFM cost estimate for the facility, and the use of the Division's newly developed TIDE program to evaluate the Tailings solution drain down rate period and the associated PFCE program. The PFCE uses the TIDE timeframe to determine inputs for labor while pumping and evaporating solution and the electrical costs for the pumps and evaporators to provide for process fluid management reduction to achieve passive closure of the facility. The cost for rental pumps and the purchase of evaporator(s) are included

along with the cost to develop a closure plan in the case that an operator does not have an approved plan submitted.

(v) TAILINGS IMPOUNDMENT LINER DESIGN

A liner designed to minimize/eliminate releases fro m the unit based on site specific conditions.

NAC 445A.424(1)(b) prohibits a mine facility from d egrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading s urface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water q uality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the water quality standards pe r NAC 445A.424. Such a plan may include a capture and treatment system (however, th e capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from co ntaminants in a material are bound or contained so as to prevent them from degrading wate rs of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.431 states that upon termination of the ac tive use of a tailings impoundment, representative samples of the material deposited in the impoundment must be collected and characterized. The tailings must be stabilized during the final closure of a facility so as to inhibit the migration of any contaminant that has the potential to degrade the waters of the State.

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of t he site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id.

In areas where annual evaporation exceeds annual pr ecipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migrati on pathways so that any release from the facility will not degrade waters of the St ate. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluidmanagement system must be designed to be able to remain fully functional and fully con tain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval.

NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must takeinto consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

Groundwater is considered to be near the surface if: the depth from the surface to groundwater is less than 100 feet and the top 100 feet of the existing formation has a coefficient of permeability greater than that exhibited by 100 feet of $1x10^{-5}$ cm/sec material, open fractured or faulted geologic conditions exist in the bedrock from the surface to the groundwater, or there is an inability to document that all exploratory and condemnation borings beneath the site have been adequately sealed. NAC 445A.433(2)(a-c). No new process component containing process fluids may be located within 1,000 feet of any dwelling which is occupied at least part of the year and which is not a part of the facility. NAC 445A.433(3). This restriction does not apply to modifications at a facility which predate such a dwelling. Id. The application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

NAC 445A.437(1) requires that a tailings impoundment utilize a system of containment equivalent to 12 inches of recompacted native, imported, or amended soils which have an in place recompacted coefficient of permeability of no more than $1x10^{-6}$ cm/sec, or competent bedrock or other geologic formations underlying the site which has been demonstrated to provide a degree of containment equivalent to 12 inches. An alternate level of containment may be required by the Department for all of the tailings impoundment or for a portion thereof after considering the anticipated characteristics of the material to be deposited, the characteristics of the soil and geology of the site, the degree to which the hydraulic head on the impoundment liner is minimized, the extent and methods used for recycling or detoxifying fluids, pond area and volume, the depth from the surface to all groundwater, and the methods employed in depositing the impounded material. NAC 445A.437(2)(a-g).

When a liner is included as part of the waste rock facility design, soil liners must have a minimum thickness of 12 inches and be compacted inlifts which are no more than 6 inches

thick. NAC 445A.438(1). A soil liner must have a pe rmeability of not more than that exhibited by 12 inches of $1x10^{-7}$ centimeters per second (cm/sec) material. Id. Syn thetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of $1x10^{-11}$ cm/sec. NAC 445A.438(2). The Division is requiredto review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner including the type of foundation, slope and stability; the over liner protection and provisions for hydraulic relie f; the load and means of applying load; the compatibility of a liner with waste rock drainage; the complexity of the leak detection and recovery systems (if present); the depth from the surface to all groundwater; and the liner's ability to remain functionally competent un til permanent closure has been completed. NAC 445A.438(3)(a-g).

The Division has established permit limitations for leak detection rates for double lined systems, which are allowable leakage rates for proc ess fluids that pass through the primary liner and are collected in an internal sump or drain between the double liner systems. The process fluid evacuates the system be tween the primary and secondary liners and is placed back into full containment. T his allows the head pressure on the secondary liner to remain at a minimal level, therefore significantly reducing the potential for a release to occur from the secondary liner. I f allowable leakage rates are exceeded, the permittee must develop a corrective action plan and complete repairs to the containment in order to comply with permitted levels.

The Division guidance document "Permit Limitations for Leak Detection Systems" establishes the following limitations for leak detection systems:

	Quarterly	Annually
DOUBLE-LINED PONDS	150 gallons per day	50 gallons per day
LEACH PADS and OTHER NON-IMPOUNDING SURFACES		
Sub-base permeability		
1.0×10^{-7} cm/sec	150 gallons per day	50 gallons per day
1.0×10^{-6} cm/sec	75 gallons per day	25 gallons per day
1.0×10^{-5} cm/sec	20 gallons per day	10 gallons per day
CONVEYANCE CHANNELS		
Sub-base permeability		
1.0×10^{-7} cm/sec	150 gallons per day	50 gallons per day
1.0×10^{-6} cm/sec	45 gallons per day	15 gallons per day

For synthetically lined ponds, the EPA and most sta te regulatory agencies utilize an allowable leakage flow rate (ALR) based on gpad. For a lined process pond at a mine site, the ALR ranges from 200 to 500 gpad, depending on the state or regulatory authority. For a 1-acre process pond (208 feet by 208 feet by 30 feet deep) and a 200 gpad ALR rate, this would equate to an ALR of 200 gpd every day. For a 5-acre process pond (1,040 feet by

208 feet by 30 feet deep) and a 200 gpad ALR, this would equate to an ALR of 1,000 gpd every day.

In Nevada's mining program, a more restrictive leakage rate is utilized and is not dependent on the size of the pond. For either situation, the allowable leakage rate is 150 gpd, averaged quarterly and 50 gpd, averaged annually. It should be noted that in spite of the more restrictive Nevada ALRs, the Nevada-permitted facilities continue to meet the regulatory limits.

In the event that permit limitations are exceeded, a site-specific evaluation must be conducted by the permittee to assess the need for additional process component or site monitoring (NAC 445A.441, WPCP Part II.B.4). Depending upon site-specific conditions, the permittee may be required to institute a mitigation procedure(s) to bring the process component into compliance with the permit limitation. If it can be demonstrated that the permit violation will not result in degradation of waters of the State and the permittee complies with new monitoring levels and mitigation procedures, the Bureau may allow the continued use of the non-compliant process component. If a permit limitation for a leak detection system is exceeded, the Bureau does not intend to use the permit limitation as a means of halting beneficiation or assessing penalties, except in cases where the design criteria is no longer reasonably met, the permittee has been negligent, or the permittee is not responsive in taking proper corrective action.

A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. NAC 445A.439 A summary of the quality control data must be submitted to the Department with the as-built drawings. Id.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

(vi) MANAGEMENT AND AVOIDANCE OF GEOCHEMICALLY ACTIVE MATERIALS; SAMPLING AND MONITORING

If prevention/avoidance is relied on, a management plan that demonstrates geochemically active materials will effectively be avoided, and that includes provisions for sampling and monitoring documentation.

NAC 445A.398 requires the submittal to the Department of the proposed operating plans for the facility for review and approval. The plans must include a description and the range of operating conditions for which the components were designed and a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. The operating plan must provide a description of the

means to evaluate the conditions in the fluid manag ement system so as to be able to quantify the available storage capacity for meteori c waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in t he area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples.

NAC 445A.396 requires that a permit application mus t include the results from testing samples from the facility's mine site which are rep resentative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to r equire a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste rock management plan, which details the placement a nd management of benign and chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation.

NAC 445A.424(1)(b) prohibits a mine facility from d egrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading s urface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water q uality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424 . Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the sou rce material. NAC 445A.379 defines stabilization as the condition that results from co ntaminants in a material are bound or contained so as to prevent them from degrading wate rs of the State under the environmental conditions that may be reasonably expected to exist at a site.

The program to monitor the site of a facility mustbe designed to monitor the quality of all ground and surface water which may be affected by t he facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation ofthe facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probabl e escape pathways in the

unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

A WPCP issued by the Division also includes a standard provision (Part II.B.2.E.) that provides a regulatory mechanism for the Permittee to submit to the Division for review and approval of revised monitoring plan and sampling protocols annually. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

(vii) WET TAILINGS IMPOUNDMENTS

If a wet tailings impoundment is present:

(A) A requirement to develop and implement a Tailings Operations, Maintenance and Surveillance (TOMS) manual, or similar plan, that defines and describes roles and responsibilities of personnel assigned to the facility; procedures and processes for managing change; the key components of the facility; procedures required to operate, monitor the performance of, and maintain a facility to ensure that it functions in accordance with its design, meets regulatory and corporate policy obligations, and links to emergency planning and response; downstream notification; and, requirements for analysis and documentation of the performance of the facility.

NAC 445A.398 requires the submittal to the Department of the proposed operating plans for the facility for review and approval. The plans must include a description

and the range of operating conditions for which the components were designed and a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. The operating plan must provide a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples.

NAC 445A.396 requires that a permit application must include the results from testing samples from the facility's mine site which are representative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to require a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste rock management plan, which details the placement and management of benign and chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation".

NAC 445A.424(1)(b) prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565.

Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the water quality standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id.

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3).

In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1). The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that all closure components be designed to withstand run-off from a 24-hour storm event with a 500-year recurrence interval. The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

The program to monitor the site of a facility must be designed to monitor the quality of all ground and surface water which may be affected by the facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved

by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation of the facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

A WPCP issued by the Division also includes a standard provision (Part I.I.) that requires the Permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of: Deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

A WPCP issued by the Division also includes a standard provision (Part II.B.2.E.) that provides a regulatory mechanism for the Permittee to submit to the Division for review and approval of revised monitoring plan and sampling protocols annually. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation

that may release pollutants, including but not limi ted to open pits and pit lakes. See also, NAC 445A.359 and 445A.378, The Nevada g uidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure component s used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Mine facilities must be monitored for up to 30 year s following the completion of permanent closure actions to prevent degradation of waters of the State. NAC 445A.446(2).

Under NAC 535.200(1), a person is required, pursuan t to NRS 535.010, to notify the State Engineer before he or she constructs reco nstructs or alters a dam and must submit to the State Engineer a description of all work that is proposed. The State Engineer will review the notice and its accompanying materials and, not later than 30 days after receiving the notice, will respo nd in writing stating the deficiencies, if any, in the submission that must be cured, that approval of the plans and specifications pursuant to subsection 2 of NRS 535.010 is required before construction may begin, or that no such approval is necessary. NAC 535.200(2)(a-c). A person who files a completed application for approval of plans for a dam pursuant to NAC 535.210 or 535.220 shall be deemed to have complied with these requirements. NAC 535.200(3).

NAC 535.210 sets-forth the requirements of an appli cation seeking approval of plans for a dam. A person must submit the application either in person or by mail. NAC 535.210(1). Each element of the plans and spec ifications must be prepared by or under the supervision of a professional engin eer and must bear the wet stamp and signature of the professional engineer. I d. The design report must include, without limitation, a description of the proposed structure and discussions of: the design approach, a geotechnical report, specifications for construction and an adequate description of the proposed work, calculations regarding strength or stability incorporating a FOS. See generally., NAC 535.210.

A person must also submit an application for approv al of plans for decommissioning of a dam. NAC 535.220(1). The appl ication must be submitted in person or by mail. Id. Each element of the pla ns and specifications must be prepared by or under the supervision of a professional engineer and must bear the wet stamp and signature of the professional engineer. Id.

To obtain an approval to impound, including a tempo rary approval to impound, an owner or operator of a dam classified as high hazar d or significant hazard must submit to the State Engineer an emergency action pl an for the dam. NAC 535.320(1). An owner or operator of a dam classified as high hazard or significant hazard for which an approval to impound has been granted as of October 24, 2014,

or that otherwise is impounding water or is capable of impounding water as of October 24, 2014, must submit to the State Engineer an emergency action plan for the dam. NAC 535.320(2). An emergency action plan submitted pursuant to this section must follow the format presented by the Federal Emergency Management Agency in the Federal Guidelines for Dam Safety: Emergency Action Planning for Dams (FEMA Publication No. P-64) or an equivalent format approved by the State Engineer. NAC 535.320(3)(a).

The State Engineer will inspect or require an owner to inspect a dam classified as high hazard not less than once a year, a dam classified as significant hazard not less than once every 3 years, any dam that is the subject of a complaint submitted to the State Engineer which alleges that the reservoir created by the dam is in an unsafe condition or is being used in an unsafe manner. NAC 535.360(1)(a-c). An inspection by an owner required by the State Engineer pursuant to this paragraph must be completed not later than the date specified by the State Engineer, and any other dam not less than once every 5 years. NAC 535.360(1)(c-d). The State Engineer may at any time inspect, or require an owner to inspect, a dam under construction to determine the condition of any element relevant to the safety of the dam. NAC 535.360(2). If a permittee fails to complete all required repairs in a reasonable time or the State Engineer concludes that a hazardous condition exists that may threaten life or property, the State Engineer may order the operator to lower, drain or cease diverting water into the reservoir until the operator satisfies the State Engineer that the repair has been completed or the condition has been rectified. NAC 535.360(4). If the State Engineer determines, pursuant to subsection 3 of NRS 535.030, that immediate remedial action is necessary to safeguard life or property, the State Engineer will take such action. NAC 535.360(5).

NAC 535.370(1) requires that each owner and each permittee operate and maintain his or her dam and works appurtenant to the dam in a safe manner and in accordance with all applicable permits, laws and regulations; take all necessary action allowed by law to prevent the failure of the dam; notify the State Engineer and local responsible authorities of any problem or unusual event at the dam; modify his or her dam to meet changing downstream hazard conditions or upstream watershed modifications; and maintain an operation manual and log for each dam that he or she owns or operates.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

NAC 519A.345(5)(a) requires an operator of a mine to regrade a tailings surface to promote storm runoff and reduce infiltration using the State policy requirement

for a minimum 2.0 foot ET earth cover depth for the closure of a process facility. An engineered designed spillway is required to conv ey water off the Tailings facility. NAC 519A.345(5)(e). Nevada's very arid cl imate combined with the ET cover depth has effectively been demonstrated in re ducing meteoric infiltration rates to less than 5%. The ET cover material is sal vaged growth medium material (or suitable overburden) which was stockpiled nearb y during the construction phase as required in the reclamation plan for approval of the reclamation permit.

The SRCE program has a specific Tailings module to calculate the ET cover volume, placement and revegetation costs (including the imp oundment slope). A designated environmental scientist, in cooperation with the Bureau's Reclamation Branch Professional Engineer, review the 6-month IF M cost estimate for the facility, and the use of the Division's newly devel oped TIDE program to evaluate the Tailings solution drain down rate time frame and the associated PFCE program.

The IFM is a required 6 month period using site-specific requirements to calculate a 6-month cost for 24/7 labor, rental pumps and electrical power costs for the re-circulation of process solution to prevent a reclaim pond overflow. IFM provides a conservative timeframe until such time that a gover nment agency can secure the posted surety bond amount in the case an operator fails to perform.

The TIDE program is a site-specific model used to d etermine the solution management period for a wet tailings facility based upon the supernatant area solution volume and the "beach area" where tailings are not being deposited. The TIDE model provides site-specific inputs for the he ight of the facility, the applied solution rate and the pore space of deposited tailings to calculate the total solution inventory to be evaporated. The TIDE inputs determi nes the number of months required for 24/7 labor, the pump rental for soluti on re-circulation and evaporation of the tails solution to prevent overflow of the reclaim pond.

The PFCE uses the TIDE timeframe to determine the l abor inputs for pumping and evaporating the solution volume to achieve fluid re duction to achieve the passive closure of the facility. PFCE includes the cost for pump rentals and new evaporator(s) and the associated electrical costs b ased upon the designated timeframe.

(B) Annual tailings inspection reports by a qualif ied engineer and an inspection report by an independent qualified engineer at least every five years.

The State Engineer will inspect or require an owner to inspect a dam classified as high hazard not less than once a year, a dam classi fied as significant hazard not less than once every 3 years, any dam that is the subject of a complaint submitted to the State Engineer which alleges that the reserv oir created by the dam is in an

unsafe condition or is being used in an unsafe mann er. NAC 535.360(1)(a-c). An inspection by an owner required by the State Engineer pursuant to this paragraph must be completed not later than the date specifiedby the State Engineer, and any other dam not less than once every 5 years. NAC 535 .360(1)(c-d). The State Engineer may at any time inspect, or require an own er to inspect, a dam under construction to determine the condition of any elem ent relevant to the safety of the dam. NAC 535.360(2). If a permittee fails to co mplete all required repairs in a reasonable time or the State Engineer concludes that a hazardous condition exists that may threaten life or property, the State Engin eer may order the operator to lower, drain or cease diverting water into the reservoir until the operator satisfies the State Engineer that the repair has been complet ed or the condition has been rectified. NAC 535.360(4). If the State Engineer determines, pursuant to subsection 3 of NRS 535.030, that immediate remedial action isnecessary to safeguard life or property, the State Engineer will take such action; post, at the head works of the dam, a notice that states: the telephone number and address of the State Engineer's office, the specific action the State Engineer is taking, and the authority under which the State Engineer is acting; and serve a copy of the notice on the operator at the most recent address provided by the operator or owner. NAC 535.360(5)(a-c). The State Engineer may enter onto private land for the purposes of administering this section. NAC 535.360(6). The State Engineer may, pursuant to NRS 535.030, require an owner or his or her desi gnee to: submit to the State Engineer a proposed schedule of inspections of the dam and any works appurtenant to the dam; if the State Engineer appro ves the inspection schedule, cause the inspections to be conducted; maintain records of all inspections and any actions taken to correct any deficiencies identifie d; and file with the State Engineer, not later than 30 days after each inspect ion, a copy of the report of the inspector. NAC 535.360(7)(a-d).

A WPCP issued by the Division also includes a stand ard provision (Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, b ut not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of: deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

(viii) CONCURRENT OR SEQUENTIAL RECLAMATION OF TAILINGS IMPOUNDMENTS PRIOR TO FINAL CESSATION OF OPERATION AND CLOSURE

Requirements for concurrent or sequential reclamation of mined areas as they become available prior to final cessation of operations and closure.

Mine facilities must be monitored for up to 30 years following the completion of permanent closure actions to prevent degradation of waters of the State. NAC 445A.446(2). The closure and stabilization requirements pertain to process and non-process components (solid and liquid process mine wastes) such as heap leach pads, tailings impoundments, pits, waste rock dumps, ore stockpiles, and any other associated mine components that, if not properly managed during operation and closure, could potentially lead to the degradation of waters of the State. NAC 445A.446. A mining facility operator/permittee is required to submit a Tentative Permanent Closure Plan at the time of application for a WPCP. NAC 445A.398(5). Sources which have not been classified as process components such as waste rock disposal facilities, must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be closed in accordance with the State Handbook of Best Management Practices (Sections 9-1 through 9-6) prepared pursuant to NAC 445A.336. NAC 445A.447(3).

A Final Permanent Closure Plan must be submitted to the Department two years prior to the anticipated closure of a mine site. NAC 445A.447(2). The Division has prepared a guidance document "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports" which delineates a permittees responsibilities and Division requirements with respect to permanent closure. This plan must provide closure goals and a detailed methodology of activities necessary to achieve a level of stabilization of all known and potential contaminants at the site. The Final Permanent Closure Plan must include a detailed description of all proposed monitoring that will be conducted to demonstrate how the closure goals are being met.

Following the completion of all closure related activities; a Final Closure Report must be submitted to the Bureau summarizing all completed closure related activities. This document should contain all information necessary for the operator to demonstrate to the Department that the completed closure activities, per process and non-process component, will ensure that waters of the State will not be degraded. This report must include a proposal for post-closure monitoring for an initial period of time not less than five (5) years in order to provide additional supporting data that stabilization has truly been achieved.

The Request for Final Closure is made following the completion of the post-closure monitoring period. The request should contain all post-closure monitoring information and clearly demonstrate stabilization. Upon the successful demonstration of stabilization, the Department would consider the mine site to be in final closure, retire the WPCP, and eliminate all NAC 445A fee requirements.

Local county and municipal ordinances and site-specific conditions may require a facility to implementation additional closure practices or methodologies.

NAC 519A.285 describes the time when reclamation must be initiated and completed and the process for requesting an extension of time. If affected land cannot practicably be reclaimed concurrently with an exploration projector mining operation, reclamation must be initiated within 2 years after completion or abandonment of the exploration project or mining operation; within 3 years after a temporary closure of an exploration project or mining operation; or as required by the BLM, the USFS or another federal land management agency. NAC 519A.285(1)(a-c). The Division may grant one or more extensions of the time when reclamation must begin if the operator of an exploration project or mining operation demonstrates that a reasonable likelihood exists that the project or operation will resume, based on a consideration of factors including, but not limited to: The presence of additional mineralization of the commodity being mined or other commodities in commerce; Historical fluctuations in the value of the commodity being mined or other commodities present if they can be mined using the same disturbances; The design life of any beneficiationprocess components existing at a mining operation; and If the closure was caused because oflitigation. NAC 519A.285(2)(a-d). Each extension is for a 3-year period. NAC 519.285(2). Once initiated, final reclamation activities must be completed as set forth in an approved plan for reclamation, unless the exploration project or mining operation is reactivated. NAC 519A.285(3).

The Division may, if appropriate, require an operator of a mine to reclaim dams for tailings ponds by: covering with waste rock, topsoil, or growth medium; revegetation; and rendering the dam incapable of storing any mobile fluid in a quantity which could pose a threat to the stability of the dam or to public safety. NAC 519A.345(4)(a-c). The Division may also reclaim impoundments for tailings by: regrading to promote runoff and reduce infiltration; covering with waste rock, topsoil, or growth medium; revegetation; process fluid stabilization; and diverting run-on. NAC 519A.345(5)(a-e).

NAC 445A.446(1)(c) states that the Permanent closure of a facility must be initiated when the end of the design life of that process component is reached.

NAC 519A.270(6) requires a proposed schedule of the time for initiation and completion of activities for reclamation.

RESPONSE CATEGORY 6—PROCESS PONDS and RESERVOIRS [Proposed 40 CFR 320.63(a)(vi)]

GENERAL COMMENTS

The State of Nevada meets or exceeds all of the requirements listed for the process pond and reservoir category except for the requirement for existing projects to contain a 100-year 24-hour storm event during operations and for new projects to contain a 200-year 24-hour storm event.

Currently mine facilities must be constructed to co ntain a 25-year 24-hour storm event and withstand a 100-year 24-hour storm event. In Nevad a mine closure guidance the Division is recommending that facilities are constructed to wit hstand a 500-year event. The Division is considering a change to its regulations to require that closed facilities are designed to contain a 100-year 24-hour storm event and to withstand a 500-year 24-hour storm event.

All ponds that are intended to contain process flui ds must have a primary synthetic liner and a secondary liner. Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point, is accessible, and has a system for recovering those fluids. When the material between the liners is unable to collect, transport and remove all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down. Ponds that are primarily designed to contain excess quantities of process fluids from storm events for limited periods of time may be constructed with a single liner if approved by the Department. Pond s containing non-process fluids may be required to be lined depending on their potential to degrade waters of the State.

Under NAC 519A.345(7)(a), the Division may, if appr opriate, require an operator of a mine to reclaim solution ponds, settling ponds and other no ntailings impoundments by backfilling and regrading to approximate the natural land form and restoring the regime of the surface water to the regime that existed before the disturbance.

The SRCE program has a module to calculate the clos ure costs of process ponds to include liner cutting and folding with backfill with the appropri ate equipment and labor costs. To insure containment of the passive drain down solution rate , the use of double lined process ponds are converted to ET Cells or E Cells. The Bureaus has d eveloped a User page Closure pond module to calculate the cost of converting an existing proces s pond to an ET or E Cells to contain seepage drain down of a leach pad at approximately $100,000 per acre pond. The User page Closure pond module has an input space linked to the SRCE summary page to include it in the total reclamation surety amount and make it part of the calculated percentage government in-direct administration costs.

(i) SAFETY AND PREVENTION OF PUBLIC ACCESS TO POND S AND RESERVOIRS

A plan to address public safety by prevention of pu blic access by means of security fencing, or other effective methods.

NAC 519A.260(1) requires a plan for reclamation consider the pre and post-mining use of the land. NAC 519A.270(16) requires a description of any necessary monitoring or maintenance of any fencing or signs. 519A.345.9(c) requires construction and maintaining berms fences or other means of restricting access.

NAC 519A.390 requires the use of a barricade, fence , permanently anchored seal, or backfill to secure dangerous conditions at a mine. This requirement applies to surface or

underground mines as well as any development, beneficiation plant, mill, smelter, refinery or other facility used to treat or reduce any mineral commodity, whether or not it is contiguous to an area where exploitation or extraction of mineral commodities occurs.

In addition, 30 CFR, Part 56 "Safety and Health Standards—Surface Metal and Non-Metal Mines" , Section 56.20011 and Part 57 "Safety and Health Standards –Underground Metal and Non Metal Mines" Section 57.20011 both require mine operators to install barricades (e.g., fencing, concrete barriers, barrels, etc.) and erect warning signs at active mine sites for employee and public safety.

Other authorities and resources that are considered for preventing public access include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

(ii) POND AND RESERVOIR DESIGN CRITERIA

A plan for the design and operation of such ponds and reservoirs to ensure they have adequate freeboard and are designed to prevent discharges of hazardous substances.

NAC 445A.424(1)(b) prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.397 requires that the engineering design report include an evaluation of structural stability. Nevada does not differentiate between critical and non-critical structures on a site-specific basis and sets stability requirements based on site-specific needs and criteria.

NAC 445A.398 requires that a permit application include the proposed operating plans for the facility. The plan must include a description and the range of operating conditions for which the components were designed; a plan for the management of process fluids which

describes the methods to be used for the monitoring and controlling of all process fluids. NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.396 requires that a permit application must include the results from testing samples from the facility's mine site which are representative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to require a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste rock management plan, which details the placement and management of benign and chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation.

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id.

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

NAC 445A.435 sets forth the minimum design criteria for ponds. Under that section, all ponds which are intended to contain process fluids must have a primary synthetic liner and a secondary liner. NAC 445A.435(1). Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point which is accessible and has a system for recovering those fluids. Id. When the material between

the liners is unable to collect, transport and remo ve all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down. NAC 445A.435(2). Ponds which are pri marily designed to contain excess quantities of process fluids that result from storm events for limited periods may be constructed with a single liner if approved by the Department. NAC 445A.435(3). Ponds containing non-process fluids may be required to be lined depending on their potential to degrade waters of the State. NAC 445A.435(4).

The Division has established permit limitations for leak detection rates for double lined systems. These are allowable leakage rates for process fluid that pass through the primary liner and are collected in an internal sump or drain between the double liner systems. The process fluid is evacuated from between the primary and secondary liners and placed back into full containment. This allows the head pressure on the secondary liner to remain at a minimal level, therefore significantly reducing the potential for a release to occur form the secondary liner. If allowable leakage rates are exceeded then the permittee must develop a corrective action plan and complete repairs to th e containment in order to meet or exceed permitted levels.

The Division guidance document titled "Permit Limit ations for Leak Detection Systems" establishes the following limitations for leak detection systems:

	Quarterly	Annually
DOUBLE-LINED PONDS	150 gallons per day	50 gallons per day
LEACH PADS and OTHER NON-IMPOUNDING SURFACES		
Sub-base permeability		
1.0×10^{-7} cm/sec	150 gallons per day	50 gallons per day
1.0×10^{-6} cm/sec	75 gallons per day	25 gallons per day
1.0×10^{-5} cm/sec	20 gallons per day	10 gallons per day
CONVEYANCE CHANNELS		
Sub-base permeability		
1.0×10^{-7} cm/sec	150 gallons per day	50 gallons per day
1.0×10^{-6} cm/sec	45 gallons per day	15 gallons per day

For synthetically lined ponds, the EPA and most sta te regulatory agencies utilize an allowable leakage flow rate (ALR) based on gpad. For a lined process pond at a mine site, the ALR ranges from 200 to 500 gpad, depending on the state or regulatory authority. For a 1-acre process pond (208 feet by 208 feet by 30 feet deep) and a 200-gpad ALR rate, this would equate to an ALR of 200 gpd every day. For a 5-acre process pond (1,040 feet by 208 feet by 30 feet deep) and a 200 gpad ALR, this would equate to an ALR of 1,000 gpd every day.

In the Nevada's mining program, a more restrictive leakage rate is utilized and is not dependent on the size of the pond. For either situation, the allowable leakage rate is 150

gpd, averaged quarterly and 50 gpd, averaged annually. It should be noted that in spite of the more restrictive Nevada ALRs, the Nevada-permitted facilities continue to meet the regulatory limits.

In the event that permit limitations are exceeded, a site-specific evaluation must be conducted by the permittee to assess the need for additional process component or site monitoring. WPCP Part II.B.4. Depending upon site-specific conditions, the permittee may be required to institute a mitigation procedure(s) to bring the process component into compliance with the permit limitation. If it can be demonstrated that the permit violation will not result in degradation of waters of the State and the permittee complies with new monitoring levels and mitigation procedures, the Bureau may allow the continued use of the non-compliant process component. If a permit limitation for a leak detection system is exceeded, the Bureau does not intend to use thepermit limitation as a means of halting beneficiation or assessing penalties, except in cases where the design criteria is no longer reasonably met, the permittee has been negligent, or the permittee is not responsive in taking proper corrective action.

NAC 445A.436 states that all vats, tanks and othercontainers which confine process fluids and can be visually inspected for leaks do not require double liners if an area for secondary containment equal to 110 percent of the largest container is provided. Vats, tanks or other containers that are partially buried and cannot be visually inspected must have a system to detect leaks. Id.

When a liner is included as part of the waste rock facility design, soil liners must have a minimum thickness of 12 inches and be compacted inlifts which are no more than 6 inches thick. NAC 445A.438(1). A soil liner must have a permeability of not more than that exhibited by 12 inches of $1x10^{-7}$ centimeters per second (cm/sec) material. Id. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of $1x10^{-11}$ cm/sec. NAC 445A.438(2). The Division is requiredto review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner including the type of foundation, slope and stability; the over liner protection and provisions for hydraulic relief; the load and means of applying load; the compatibility of a liner with waste rock drainage; the complexity of the leak detection and recovery systems (if present); the depth from the surface to all groundwater; and the liner's ability to remain functionally competent until permanent closure has been completed. NAC 445A.438(3)(a-g).

A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. NAC 445A.439 A summary of the quality control data must be submitted to the Department with the as-built drawings. Id.

The program to monitor the site of a facility mustbe designed to monitor the quality of all ground and surface water which may be affected by the facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application

as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation ofthe facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probabl e escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determi ne the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process co ntrolled design conditions. Systems designed to detect and control leaks from process c omponents must be located at the interface of the unit process components and the ad jacent environment and be able to provide the first indication that pollutants or con taminants have escaped their primary containment. Id. The program to monitor the proces s components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

A WPCP issued by the Division includes a standard p rovision (WPCP Part II.B.2.E.) that provides a regulatory mechanism for the permittee t o submit to the Division for review and approval of revised monitoring plan and samplin g protocols annually. Changes in monitoring frequency or the incorporation of additi onal monitoring points may require modification of the Permit and payment of modification fees.

A WPCP issued by the Division also includes a stand ard provision (WPCP Part I.I.) that requires the permittee to inspect all control devic es, systems, and facilities weekly (for closure permits consider relaxing frequency, but no t more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and duri ng (when possible) and after major storm events. These inspections are performed to d etect evidence of: Deterioration, malfunction, or improper operation of control or mo nitoring systems; sudden changes in the data from any monitoring device; the presence o f liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants. See also, NAC 445A.359 and NAC 445A.378.

The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand a 24-hour, 500-year storm event.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

(iii) POND LEAK DETECTION AND COLLECTION SYSTEM DESIGN AND OPERATION

A liner and collection system designed to minimize/eliminate releases from the unit based on site-specific conditions.

NAC 445A.397 requires that the engineering design report must include an evaluation of structural stability. Nevada WPC regulations do not distinguish between critical and non-critical structures at mine facilities. Nevada does not differentiate between critical and non-critical structures on a site-specific basis and sets stability requirements based on site-specific needs and criteria.

NAC 445A.398 requires the submittal to the Department of the proposed operating plans for the facility for review and approval. The plans must include a description and the range of operating conditions for which the components were designed and a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids.

NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.396 requires that a permit application must include the results from testing samples from the facility's mine site which are representative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to require a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste

rock management plan, which details the placement a nd management of benign and chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation.

NAC 445A.424(1)(b) prohibits a mine facility from d egrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading s urface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water q uality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424 . Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the sou rce material. NAC 445A.379 defines stabilization as the condition that results from co ntaminants in a material are bound or contained so as to prevent them from degrading wate rs of the State under the environmental conditions that may be reasonably expected to exist at a site

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of t he site and operating conditions in designing individual process components. See genera lly, Id. These statutes establish minimum contaminant control technologies and requir e consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protecti on through engineered containment. Id.

The following minimum design requirements apply to all process components. In areas where annual evaporation exceeds annual precipitati on, a process component must achieve zero discharge. NAC 445A.433(1)(a). All sou rces must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters o f the State. NAC 445A.433(1)(b). All process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval. NAC 445.433(1) (c). The primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(d). The Depar tment may require additional containment based on the following factors: proximi ty to surface water bodies; depth to groundwater; and proximity to population. NAC 445A. 433(1)(d)(1-3). Contingency plans for managing process contaminated flows in excess o f the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

Groundwater is considered to be near the surface if: the depth from the surface to groundwater is less than 100 feet and the top 100 feet of the existing formation has a coefficient of permeability greater than that exhibited by 100 feet of $1x10^{-5}$ cm/sec material, open fractured or faulted geologic conditions exist in the bedrock from the surface to the groundwater, or there is an inability to document that all exploratory and condemnation borings beneath the site have been adequately sealed. NAC 445A.433(2)(a-c). No new process component containing process fluids may be located within 1,000 feet of any dwelling which is occupied at least part of the year and which is not a part of the facility. NAC 445A.433(3). This restriction does not apply to modifications at a facility which predate such a dwelling. Id. The application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

NAC 445A.435 sets forth the minimum design criteria for ponds. Under that section, all ponds which are intended to contain process fluids must have a primary synthetic liner and a secondary liner. NAC 445A.435(1). Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point which is accessible and has a system for recovering those fluids. Id. When the material between the liners is unable to collect, transport and remove all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down. NAC 445A.435(2). Ponds which are primarily designed to contain excess quantities of process fluids that result from storm events for limited periods may be constructed with a single liner if approved by the Department. NAC 445A.435(3). Ponds containing non-process fluids may be required to be lined depending on their potential to degrade waters of the State. NAC 445A.435(4).

NAC 445A.436 states that all vats, tanks and other containers which confine process fluids and can be visually inspected for leaks do not require double liners if an area for secondary containment equal to 110 percent of the largest container is provided. Vats, tanks or other containers that are partially buried and cannot be visually inspected must have a system to detect leaks. Id.

When a liner is included as part of the waste rock facility design, soil liners must have a minimum thickness of 12 inches and be compacted in lifts which are no more than 6 inches thick. NAC 445A.438(1). A soil liner must have a permeability of not more than that exhibited by 12 inches of $1x10^{-7}$ centimeters per second (cm/sec) material. Id. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of $1x10^{-11}$ cm/sec. NAC 445A.438(2). The Division is required to review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner including the type of foundation, slope and stability; the over liner protection and provisions for hydraulic relief; the load and means of applying load; the compatibility of a liner with waste rock drainage; the complexity of the leak detection and recovery systems (if present); the depth from the surface to all groundwater; and the liner's ability to remain functionally competent until permanent closure has been completed. NAC 445A.438(3)(a-g).

A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. NAC 445A.439 A summary of the quality control data must be submitted to the Department with the as-built drawings. Id.

The program to monitor the site of a facility must be designed to monitor the quality of all ground and surface water which may be affected by the facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation of the facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

A WPCP issued by the Division also includes a standard provision (WPCP Part II.B.2.E.) that provides a regulatory mechanism for the permittee to submit to the Division for review and approval of revised monitoring plan and sampling protocols annually. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

A WPCP issued by the Division also includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants. See also, NAC 445A.359 and NAC 445A.378.

The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

(iv) CONCURRENT OR SEQUENTIAL RECLAMATION OF PROCESS PONDS AND RESERVOIRS PRIOR TO FINAL CESSATION OF OPERATIONS AND CLOSURE

Requirements for concurrent or sequential reclamation of mined areas as they become available prior to final cessation of operations and closure.

The closure and stabilization requirements pertain to process and non-process components (solid and liquid process mine wastes) such as heap leach pads, tailings impoundments, pits, waste rock dumps, ore stockpiles, and any other associated mine components that, if not properly managed during operation and closure, could potentially lead to the degradation of waters of the State. NAC 445A.446. A mining facility operator/permittee is required to submit a Tentative Permanent Closure Plan at the time of application for a WPCP. NAC 445A.398(5). Sources which have not been classified as

process components such as waste rock disposal facilities, must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be closed in accordance with the State Handbook of Best Management Practices (Sections 9-1 through 9-6) prepared pursuant to NAC 445A.336. NAC 445A.447(3).

A Final Permanent Closure Plan must be submitted to the Bureau two years prior to the anticipated closure of a mine site. NAC 445A.447(2). This plan must provide closure goals and a detailed methodology of activities necessary to achieve a level of stabilization of all known and potential contaminants at the site. The Final Permanent Closure Plan must include a detailed description of all proposed monitoring that will be conducted to demonstrate how the closure goals are being met.

In accordance with the Division guidance titled "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," following the completion of all closure related activities; a Final Closure Report must be submitted to the Bureau summarizing all completed closure related activities. This document should contain all information necessary for the operator to demonstrate to this Bureau that the completed closure activities, per process and non-process component, will ensure that waters of the State will not be degraded. This report must include a proposal for post-closure monitoring for an initial period of time not less than five (5) years in order to provide additional supporting data that stabilization has truly been achieved.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants. See also, NAC 445A.359 and NAC 445A.378. The Request for Final Closure is made following the completion of the post-closure monitoring period. The request should contain all post-closure monitoring information and clearly demonstrate stabilization. Upon the successful demonstration of stabilization, the Bureau would consider the mine site to be in final closure, retire the WPCP, and eliminate all NAC 445A fee requirements.

The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

The Nevada program for bonding uses the SRCE program, which bases costs on Davis Bacon wage rates, rental equipment, the Caterpillar Equipment Performance handbook

and contractor/government markups. It is an incentive for operators to begin concurrent reclamation scheduled with operations and existing equipment and labor. The potential for completing the work at a cost much lower than the SRCE model is great enough to make it an attractive option and allows for concurrent release of bond funds as the work is completed or transfer of those released funds to future disturbance activities.

NAC 519A.285 describes the time when reclamation must be initiated and completed and the process for requesting an extension of time. If affected land cannot practicably be reclaimed concurrently with an exploration projector mining operation, reclamation must be initiated within 2 years after completion or abandonment of the exploration project or mining operation; within 3 years after a temporary closure of an exploration project or mining operation; or as required by the BLM, the USFS or another federal land management agency. NAC 519A.285(1)(a-c). The Division may grant one or more extensions of the time when reclamation must begin if the operator of an exploration project or mining operation demonstrates that a reasonable likelihood exists that the project or operation will resume, based on a consideration of factors including, but not limited to: The presence of additional mineralization of the commodity being mined or other commodities in commerce; Historical fluctuations in the value of the commodity being mined or other commodities present if they can be mined using the same disturbances; The design life of any beneficiationprocess components existing at a mining operation; and If the closure was caused because oflitigation. NAC 519A.285(2)(a-d). Each extension is for a 3-year period. NAC 519.285(2). Once initiated, final reclamation activities must be completed as set forth in an approved plan for reclamation, unless the exploration project or mining operation is reactivated. NAC 519A.285(3).

Under NAC 519A.345(7)(a), the Division may, if appropriate, require an operator of a mine to reclaim solution ponds, settling ponds and other nontailings impoundments by backfilling and regrading to approximate the natural land form and restoring the regime of the surface water to the regime that existed before the disturbance.

Per NAC 519A.270(6) requires a proposed schedule of the time for initiation and completion of activities for reclamation.

(v) PROCESS POND AND RESERVOIR STORMWATER AND SEDIMENT MANAGEMENT DURING ACTIVE OPERATIONS AND DURING AND FOLLOWING CLOSURE

A plan for the management of all stormwater and sediment generated during operations and during and following closure. For existing units, the plan must provide for permanent stormwater conveyances, ditches, channels and diversions designed to convey the peak flow and ponds and other collection devices designed to store the volume generated during a 24-hour period by a 100-year return interval storm event. For unit that become authorized to operate after [insert the effective date of the Final

Rule], the plan must provide for controls designed to store the volume generated during a 24-hour period by a 200-year return interval storm event.

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

NAC 445A.398 requires that a permit application include the proposed operating plans for the facility. The plan must include a description and the range of operating conditions for which the components were designed; a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids.

NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.396 requires that a permit application must include the results from testing samples from the facility's mine site which are representative of the overburden, waste rock, and ore at the mine site and that these samples must be evaluated for their potential to release pollutants and degrade waters of the State. When there is potential to degrade, NAC 445A.393 allows the Division the authority to require a higher standard of containment or monitoring or both. This is accomplished with a Division-approved waste rock management plan, which details the placement and management of benign and

chemically reactive waste rock. This is described in greater detail in the Division Guidance Document "Waste Rock, Overburden, and Ore Evaluation.

NAC 445A.424(1)(b) prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id. However, the application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

General Mining Stormwater Permit (NVR300000) issued by the Department authorizes stormwater discharges associated with Standard Industrial Classification (SIC) 10 as derived from Category iii (shown above), defined under 40 CFR §122.26(b)(14) and all construction-related activities as defined by 40 CFR § 122.26 (b)(14)(x) and (b)(15) at mine sites (including exploration, development and reclamation activities). Facilities that are authorized under NPDES Permit NVR300000 must submit a new or updated SWPPP to the Department within 60 days of the effective date of the permit or for new dischargers

within 30 days of the submitted Notice of Intent to discharge. SWPPPs are to be made available for inspection at the project site or operation covered by this permit. The purpose of the SWPPP is to guide the identification of stormwater pollution sources and the reduction of their impacts, and otherwise lead to compliance with the conditions of this permit. Each of the SWPPP elements must be revised as necessary to maintain accuracy if there are changes in design or construction of the project or if the SWPPP is found to be insufficient.

The permittee shall make SWPPPs available upon request to the State or local agency approving sediment and erosion plans, grading plans, and stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site. The copy of the SWPPP that is required to be kept on the mining site or locally available must be made available to the Department for review at the time of an on-site inspection.

The conditions set in the General Mining Stormwater Permit are the minimum requirements to maintain and implement an effective stormwater program consistent with U. S. EPA rules (Title 40 of the Code of Federal Regulations Part 122). BMPs are approved by the U.S. EPA for use in stormwater permits.

NAC 445A.447, in conjunction with NAC 445A.359 and NAC 445A.378, requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants, including but not limited to open pits and pit lakes. The Nevada guidance document, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Mine facilities must be monitored for up to 30 years following the completion of permanent closure actions to prevent degradation of waters of the State. NAC 445A.446(2). NAC 445A.433 establishes the minimum design criteria for process components at mine facilities. This regulation requires these components to remain fully functional and fully contain all process fluids including all accumulations from a 24-hour storm event with a 25-year recurrence interval. NAC445A.433(1)(d). The minimum design criteria for process components also require the ability to withstand a 24-hour storm event with a 100-year recurrence interval. NAC 445.433(1)(c). The Division has the discretion to require addition storm capacity based on site-specific factors such as proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(d)(1-3) In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final

Closure Reports," recommends that all closure components be designed to withstand run-off from a 24-hour storm event with a 500-year recurrence interval.

A WPCP issued by the Division also includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of: Deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations

Under NAC 519A.275(4) land that is subject to excessive erosion will not be deemed to be reclaimed to a productive post-mining use unless excessive erosion existed before mining or exists on the adjacent land. The operator must provide evidence of the excessive erosion to the Division. Id.

The Division maintains a Trust Fund for Short-Term Fluid Management in accordance with NAC 519A.392 Under that statute, the Division must establish the Trust Fund for Short-Term Fluid Management; deposit money collected pursuant to this section in the Trust Fund; credit all interest earned on the money in the Trust Fund to the Trust Fund; use the money in the Trust Fund only for the management of fluids at a site while the process for forfeiture of a surety pursuant to NAC 519A.390 is pending; and after the conclusion of the process for forfeiture of a surety pursuant to NAC 519A.390, if the surety was forfeited, reimburse the Trust Fund with the surety that was forfeited. NAC 519A.392(4)(a-e). Such reimbursement must be in an amount equal to the total amount of money used from the Trust Fund at the site for which the surety was forfeited. NAC 519A.392(e). An operator that operates more than one mining operation in this State may combine the amount of surety required pursuant to NAC 519A.360 for each site to determine the total amount of surety the operator is required to provide pursuant to NAC 519A.360 for purposes of determining the amount of money to submit pursuant to this section. NAC 519A.392(5).

RESPONSE CATEGORY 7—SLAG PILES [Proposed 40 CFR 320.63(a)(vii)]

GENERAL COMMENTS

The State of Nevada meets or exceeds all of the req uirements listed for the slag pile category except for the slightly higher factors of safety re quirements, 200-year 24-hour storm storage event requirements and the 200-year design life not ed below. Currently, there are no slag piles outside of Division-approved engineered containment noted within any modern Nevada mining facilities; therefore, the Division suggests that t his section of the formula is unnecessary for operating mine facilities today. However, the foll owing discusses slag and describes how a slag pile would be regulated if one were to exist at tod ay's mine facilities. Current facilities that use milling, flotation, roasting, or autoclaving as a p rocessing method produce tailings, which are placed via slurry within Division-approved engineered tailings impoundments. Slag is a different material than tailings and is produced at some Neva da mining operations as part of the final refining portion of the beneficiation process for g old and silver ores. Slag is a process material subject to Nevada WPC regulations and must not be d ischarged outside of Division-approved engineered containment if it has the potential to d egrade waters of the State. For this reason, the State of Nevada has no specific regulations tha t apply only to slag. From a regulatory standpoint, slag has the same requirements for cont ainment and non-degradation of waters of the State as any other process material that is managed entirely within engineered containment. At Nevada mine sites, slag is typically either recy cled into an earlier stage of the beneficiation circuit on Division-approved engineered containment, or is shipped from the mine site to an off-site secondary processing facility for further meta l recovery. The Nevada program uses site-specific information to develop reclamation and clo sure plans customized to address the long-term environmental requirements for each individual slag pile while preventing degradation of waters of the State and ensuring reclamation suitable for the designated post-mining land use.

Nevada WPC regulations require structural stability evaluations for waste rock disposal sites and the fluid management system, but do not contain spe cific FOS requirements. FOS requirements are specified in a Division guidance document for h eap leach pads; however, the same requirements could be applied to a waste rock dispo sal facility or slag pile if it has the potential to degrade waters of the State. Once designs are a pproved by the Division, they become part of the WPCP by reference, and are then enforceable req uirements. In general, if site-specific conditions warrant initiating stability requirement s to protect waters of the State, then those requirements would be included in the WPCP for thefacility. Nevada WPC regulations also do not formally designate structures as being critical or non-critical, but instead the regulations focus on portions of a mining operation that have a potentia l to degrade waters of the State; those portions of the operation are subject to more regulations to eliminate that potential.

The Division does not require stability evaluations for non-critical structures. If the Division determines that the stability of a component is important to protecting the waters of the State or achieving other regulatory requirements, then that component would be regulated accordingly. During mine operations the federal Mine Safety and Health Administration also regulate the mines for stability requirements for worker safety concerns. An example of when Nevada may require stability requirements in post-closure for a waste rock facility would be to protect any critical stormwater and erosion controls that are required to protect waters of the State.

Currently, process components at Nevada mine facilities at a minimum must be constructed to contain a 25-year, 24-hour storm event and to withstand a 100-year, 24-hour storm event. The Division may require additional storm event capacity, based on site-specific factors such as proximity to surface water bodies, depth to groundwater, and proximity to population. In Nevada mine closure guidance, the Division recommends that facilities be constructed to withstand a 500-year, 24-hour event. The Division has been considering a change to Nevada closure regulations to require that closed facilities at a minimum are designed to contain the 500-year, 24-hour storm event if containment is necessary and withstand the erosional effects of a 500-year, 24-hour storm event.

(i) SAFETY AND PREVENTION OF PUBLIC ACCESS TO SLAG PILES

A plan to address public safety by prevention of public access by means of security fencing, or other effective methods.

NAC 519A.390 requires the use of a barricade, fence, permanently anchored seal, or backfill to secure dangerous conditions at a mine. This requirement applies to surface or underground mines as well as any development, beneficiation plant, mill, smelter, refinery or other facility used to treat or reduce any mineral commodity, whether or not its is contiguous to an area where exploitation or extraction of mineral commodities occurs. NAC 445A.447 requires submittal of a Final Plan for Permanent Closure for any portion of a mining operation that may release pollutants (NAC 445A.378 and 445A.359), including but not limited to slag piles and other process components. Such a plan may include a barricade, fence, and/or signage, in addition to actions focused on chemical stabilization.

(ii) MANAGEMENT AND AVOIDANCE OF GEOCHEMICALLY ACTIVE MATERIALS IN SLAG PILES; SAMPLING AND MONITORING OF SLAG PILES

If prevention/avoidance is relied on, a management plan that demonstrates geochemically active materials will effectively be avoided, and that includes provisions for sampling and monitoring documentation.

The Department considers Slag to be a spent process material. Pursuant to NAC 445A.398(6), an application for a WPCP for a mining operation must include, among other information, a tentative plan for the permanent closure of the facility, which describes the procedures, methods and schedule for stabilizing spent process materials. The plan must include: procedures for characterizing spent process materials as they are generated and the procedures to stabilize all process components with an emphasis on stabilizing spent process materials and the estimated cost for the procedures. NAC 445A.398(6)(a-b)

A WPCP application must also include, a plan for monitoring the facility which describes the water quality in the area and the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and ground water at the site that may be affected by the operation of the facility. NAC 445A.398(3)(a-b).

An application for a WPCP must also include results from testing samples from the facility's mine site which are representative of the overburden, waste rock, and ore at the proposed mine site and characterized by a multi-element spectrographic assay or an equivalent analytical procedure and evaluated for their potential to release pollutants. NAC 445A.396(4)(a-b).

The application for a WPCP must also include an engineering design report, stamped by a Nevada licensed Professional Engineer, containing, among other things, detailed information to allow the Division to determine that the design of the process components is sufficient to protect waters of the State from degradation. NAC 445A.397(1) Further detail on minimum design criteria for process components is provided in NAC 445A.433(1)(a), which provides that in areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge. Annual evaporation exceeds annual precipitation at virtually all mine sites in Nevada.

A Final Permanent Closure Plan must be submitted to the Bureau two years prior to the anticipated closure of a mine site. NAC 445A.447(2) Permanent closure refers to the time when activities for the final stabilization, removal or mitigation of sources of pollutants are initiated. NAC 445A.367. Stabilization is the condition in which contaminants are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may reasonably be expected to exist at a site. NAC 445A.379.

(iii) CONCURRENT OR SEQUENTIAL RECLAMATION OF SLAG PILES PRIOR TO FINAL CESSATION OF OPERATIONS AND CLOSURE

Requirements for concurrent or sequential reclamation of mined areas as they become available prior to final cessation of operations and closure.

NAC 519A.285 describes the time when reclamation must be initiated and completed and the process for requesting an extension of time. If affected land cannot practicably be reclaimed concurrently with an exploration projector mining operation, reclamation must be initiated within 2 years after completion or abandonment of the exploration project or mining operation; within 3 years after a temporary closure of an exploration project or mining operation; or as required by the BLM, the USFS or another federal land management agency. NAC 519A.285(1)(a-c). The Division may grant one or more extensions of the time when reclamation must begin if the operator of an exploration project or mining operation demonstrates that a reasonable likelihood exists that the project or operation will resume, based on a consideration of factors including, but not limited to: The presence of additional mineralization of the commodity being mined or other commodities in commerce; Historical fluctuations in the value of the commodity being mined or other commodities present if they can be mined using the same

disturbances; The design life of any beneficiationprocess components existing at a mining operation; and If the closure was caused because oflitigation. NAC 519A.285(2)(a-d). Each extension is for a 3-year period. NAC 519.285(2). Once initiated, final reclamation activities must be completed as set forth in an app roved plan for reclamation, unless the exploration project or mining operation is reactivated. NAC 519A.285(3).

NAC 519A.270(6) requires a proposed schedule of the time for initiation and completion of activities for reclamation.

NAC 445A.446(1)(c) requires that permanent closure of a process component must be initiated when the end of the design life of that p rocess component has been reached, without regard to whether the overall mining operat ion is still active or not. Permanent closure of a mine facility must also be initiated a fter five to 10 years (depending on the WPCP renewal schedule) of unplanned temporary closure. NAC 445A.446(2).

A Final Permanent Closure Plan must be submitted to the Bureau two years prior to the anticipated closure of a mine site. NAC 445A.447(2). Permanent closure refers to the time when activities for the final stabilization, remova l or mitigation of sources of pollutants are initiated. NAC 445A.367. Stabilization is the condition in which contaminants are bound or contained so as to prevent them from degra ding waters of the State under the environmental conditions that may reasonably be exp ected to exist at a site. NAC 445A.379.

(iv) SLAG PILE STABILITY DURING ACTIVE OPERATIONS AND DURING AND FOLLOWING CLOSURE

Requirements to regrade surface during closure to a stable configuration that prevents ponding and promotes the conveyance of surface wate r off the unit, and that requires closure of all waste rock piles considered to be cr itical structures to be designed for a long-term static factor of safety of 1.5 or greater and all non-critical structures to be designed for a long-term static factor of safety of 1.3 or greater; and requires that the units being closed be designed for a factor of safety of 1.1 or greater under pseudostatic analysis.

Slag is considered a spent process material and mus t remain on engineered design containment (i.e., components must achieve zero dis charge as required under NAC 445A.433), unless it is demonstrated to not have th e potential to degrade waters of the State. NAC 445A.398(6). Pursuant to NAC 445A.397(1)(d), the engineering design report for a mine facility must include an evaluation of structural stability. The Division guidance document titled, "Stability Requirements Heap LeachPads," which can be applied to waste rock disposal facilities or slag piles if they have the potential to degrade waters of the State, recommends minimum factors of safety of 1.3 (static) and 1.05 (pseudostatic), although lower factors of safety may be acceptable if the licensed professional design engineer can demonstrate that the displacement from the design seismic event will not

compromise the integrity of the fluid management system or cause a release of contaminants to waters of the State. The latter seismic stability provision is considered more reasonable than the proposed CERCLA 108(b) fixed limit of 1.1 for pseudostatic FOS while being no less protective.

NAC 445A.433 sets forth minimum design criteria and universal requirements for process components. According NAC 445A.433(1)(f), the design of the process components must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity.

As noted above, Nevada WPC regulations do not formally designate structures as being critical or non-critical, but instead the regulations focus on portions of a mining operation that have a potential to degrade waters of the State. Those portions of the operation are subject to more regulations to eliminate that potential. See, NAC 445A.424, NAC 445A.432, NAC 445A.433, NAC 445A.435, NAC 445A.436, NAC 445A.437. The Division objects to requiring stability evaluations for non-critical structures. If the Division determines that the stability of a component is important for protecting waters of the State or achieving other regulatory requirements, then that component would be regulated accordingly.

The Division guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports", requires that Final Plans for Permanent Closure include a thorough discussion of various alternatives in preventing, or at least minimizing, meteoric water infiltration such as an engineered cap, a topsoil cover, diversion ditches, regrading and reshaping, compacting, etc. Once closure plans including such provisions are approved by the Division, they become part of the WPCP by reference, and represent enforceable requirements.

Waste rock piles are different from slag piles, and the Division is not aware of any examples of slag being placed on waste rock piles at modern Nevada mine facilities. Waste rock piles are covered under section 3 of the CERCLA 108(b) formula and should not be addressed in the slag pile section.

(v) PREDICTIVE STABILITY ANALYSIS OF SLAG PILES

Requirements to provide for a stability analysis to be conducted for the unit as part of the original design, and as part of mine modifications during the active life of the mine.

NAC 445A.397 requires the engineering design report for a mine facility include an evaluation of structural stability for the site of the fluid management system and waste rock disposal sites. NAC 445A.433(1)(f) also requires that the design of process components take into consideration the history of seismic events at the site to preclude

any differential movement or shifting. Both of these requirements pertain to both the original design in the initial WPCP application and to any subsequent applications to modify the facility. NAC 445A.392.

(vi) SLAG PILE STORMWATER AND SEDIMENT MANAGEMENT DURING ACTIVE OPERATIONS AND DURING AND FOLLOWING CLOSURE

A plan for the management of all stormwater and sediment generated during operations and during and following closure. For existing units, the plan must provide for permanent stormwater conveyances, ditches, channels and diversions designed to convey the peak flow and ponds and other collection devices designed to store the volume generated during a 24-hour period by a 100-year return interval storm event. For unit that become authorized to operate after the effective date of the Final Rule, the plan must provide for controls designed to store the volume generated during a 24-hour period by a 200-year return interval storm event.

Under NAC 519A.275(4) land that is subject to excessive erosion will not be deemed to be reclaimed to a productive post-mining use unless excessive erosion existed before mining or exists on the adjacent land. The operator must provide evidence of the excessive erosion to the Division. Id.

The SRCE program includes a Diversion Ditch and Sediment pond calculation module for site-specific construction inputs that can account for a 24 hour period, 200 year storm event. The module incorporates the reclamation costs based upon the required design dimensions using an excavator for diversions and a dozer to build sediment control ponds and the re-seeding costs for long-term stability. The module has the ability to meet design criteria changes based upon an engineer's professional judgment or a regulatory change.

NAC 445A.433 establishes the minimum design criteria for process components at mine facilities. This regulation requires these components to remain fully functional and fully contain all process fluids including all accumulations from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(d). The minimum design criteria for process components also require the ability to withstand a 24-hour storm event with a 100-year recurrence interval. NAC 445.433(1)(c). The Division has the discretion to require addition storm capacity based on site-specific factors such as proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(d)(1-3) In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that all closure components be designedto withstand run-off from a 24-hour storm event with a 500-year recurrence interval. However, the permittee is not released from liability for degrading the waters of the State by constructing process components in compliance with minimum design criteria. NAC 445A.433(4). Therefore, the permittee is

responsible for corrective actions after a release of pollutants from containment in accordance with their Division-approved emergency response plan (see NAC 445A.398 for reference) and the corrective action regulations at NAC 445A.227 and NAC 445A.22725, regardless of the size of the causative storm event. Division-approved emergency response plans for mining facilities typically require clean-up of all releases; however, even if they didn't, NAC 445A.379 requires stabilization to the extent necessary to prevent degradation of waters of the State.

(vii) SLAG PILE SEEPAGE MANAGEMENT AND TREATMENT DURING ACTIVE OPERATIONS AND DURING AND FOLLOWING CLOSURE

A plan for the minimization, prevention, or collection and treatment of discharges and/or seepage, based on site hydrology and water quality characterization information, that provides for a cover system of, at a minimum, a store and release earthen cover system with a thickness of at least twelve inches and, if necessary, additional source controls or capture and treatment at closure, all of which meet a minimum 200-year life design criteria. If seepage water quality is not expected to meet applicable Federal and state groundwater and surface water quality standards at the point of compliance, the plan must provide for:

(A) Implementation of a containment system that immobilizes hazardous substances to meet applicable water quality standards (e.g., an engineered cover system designed to achieve, at a minimum, a 95 percent reduction in annual net-percolation based on the long-term average to reduce seepage discharges to meet applicable water quality standards;

(B) A capture and treatment system designed to achieve at least a 95 percent capture efficiency and meet applicable water quality standards; or combination of an engineered cover system and a capture and treatment system to achieve at least a 95 percent reduction in discharged load and meet applicable water quality standards at the point of compliance, or

(C) A solution containment system to assure seepage flows are collected, contained, conveyed, and treated to achieve at least a 95 percent reduction to meet applicable water quality standards.

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting

from a 24-hour storm event with a 25-year recurrenc e interval. NAC 445A.433(1)(c),(d). The Department has the option o f requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). In exercising this discretion, the Division must use its best eng ineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. Contingency plans for managing process contaminated flows in excess of th e design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

Because of the broad spectrum of environmental cond itions, potential impacts, and proposed designs at individual mining operations, the Division does not concur that closure and reclamation requirements should be as prescriptive as stated in this section of the proposed CERCLA rules. Dependi ng on site conditions, a 95 percent reduction in percolation, 95 percent captur e, or 95 percent reduction in load may be insufficient, just right, or more than necessary, to meet applicable water quality standards. For example, a 95 percent reduction in percolation through an engineered cover on a leaking leach pad will likely be insufficient and not meet groundwater standards, whereas a 95 percert capture of a groundwater contaminant plume may be more than is necessary to meet applicable water standards. Similarly, a minimum 200-year design li fe may be appropriate for an engineered liner cap system over a leaking leach pa d, but be more than is necessary for a seepage collection pond that will f ill with evaporative salts and require replacement every 30 years. Therefore, suc h overly prescriptive requirements will likely interfere with the effecti veness and efficiency of the regulatory program, while more site-specific design parameters could achieve better results at meeting water quality standards.

Slag is considered a spent process material and must remain on engineered design containment (i.e., components must achieve zero discharge as required under NAC 445A.433), unless it is demonstrated to not have th e potential to degrade waters of the State. NAC 445A.398(6). Therefore, for a sla g pile, the plan for the minimization, prevention, or collection and treatme nt of discharges and/or seepage would be the engineering design report, whi ch would prevent discharge and/or seepage from occurring. NAC 445A.397(1)(d).

A Final Permanent Closure Plan must be submitted to the Bureau two years prior to the anticipated closure of a mine site. NAC 445A.447(2). In accordance with the Division-approved final plan for permanent closure, spent process materials are commonly fully encapsulated with liner and buried under an earthen cover system, placed on lined containment and covered with a stor e and release earthen cover system with approved thickness and other properties , or disposed at an off-site facility authorized to receive such waste material with documentation provided to confirm proper disposal. Regardless of the closure method, the final plan for

permanent closure must demonstrate that there is no potential to degrade waters of the State. Once approved by the Division, the closure plan becomes part of the WPCP by reference, and represents an enforceable document under Nevada WPC law. NRS 445A.675(1).

Although store and release earthen cover systems used on process components at Nevada mining facilities are typically at least 12 inches thick, Nevada WPC regulations do not specify a minimum thickness for earthen cover systems. Instead, Nevada regulations require less prescriptively, and arguably more effectively, that process components and associated process materials be chemically stabilized during permanent closure to prevent them from degrading waters of the State under the environmental conditions that may reasonably be expected to exist at the site. NAC 445A.379 defines "stabilized". Therefore, the final plan for permanent closure must demonstrate that the proposed cover system, or other closure methodology, will achieve chemical stabilization and prevent degradation of waters of the State. See, NAC 445A.367, 445A.379, 445A.447).

NAC 445A.424(1)(b) prohibits seeps or discharges having water quality that is not expected to meet applicable Federal and State groundwater and surface water quality standards at the point of compliance. If such a seep or discharge occurred, it would represent a violation of NAC 445A.424 and require cleaned up pursuant to the approved facility emergency response plan. NAC 445A.398(4). Pursuant to NAC 445A.3456, such a seep or discharge would be considered a release to the environment, and in accordance with Part II.B.3. of the standard WPCP, must be reported to the Division no later than 5:00 PM of the first working day after knowledge of the release, and to the National Response Center pursuant to 40 CFR Part 302 if a federal reportable quantity was exceeded. In the event of a reportable release, or any other permit violation as applicable, Part II.B.4.b. of the standard WPCP requires an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269, and Part II.B.4.c. of the standard WPCP requires the permittee to take all available and reasonable actions, and more frequent and enhanced monitoring, to minimize any impact to waters of the State, domestic animals, wildlife, and public health and safety. These permit requirements are authorized by the corrective action regulations at NAC 445A.227 and NAC 445A.22725.

If a slag pile issue needed to be addressed in Nevada the SRCE waste rock program could be utilized. The SRCE program has a specific calculation module to list each waste rock facility for reclamation using an "as-built" input and the mid-slope perimeter length input and a final slope input (2.5:1 or 3:0:1) to determine the volume of material required to be re-graded to meet the final slope stability topography. The waste rock module calculates the volume of growth medium

required based upon the re-sloped acres for both scarification and re-seeding costs. The reclamation costs are determined by the dozer(s) and/or scraper productivity timeframes and the associated labor hours to perform the reclamation task to include the seed and re-seeding labor costs. The equipment timeframe includes rental rate hours, fuel consumption and the wear maintenance costs as determined by the Caterpillar Handbook. The re-grading and revegetation requirements minimize erosion to achieve long-term stability of the facility and meet the required productive post-mining land use and therefore the restricting of public access for safety is not required.

The SRCE program has a specific Generic Hauling module that calculates the total volume of material required based on the cover depth and acreage of a facility, the equipment used, and the transport cost of material based upon the distance from a defined borrow source. SRCE has the ability to calculate the placement of a 10 foot oxide evapotranspiration cover over a defined acid generating waste rock facility or a slag pile to isolate meteoric water from entering the waste facility and thus eliminate the potential for mine-impacted waters. For a mine site with limited borrow source to meet a required cover depth, SRCE has an established synthetic liner material and placement costs based on the square footage of liner required and the SRCE User Page can be used by a mine engineer to calculate the total cost of this reclamation activity. The total cost will be listed as a line item cost in the SRCE summary page which will have agency in-direct costs added.

RESPONSE CATEGORY 8—SOLID and HAZARDOUS WASTE [Proposed 40 CFR 320.63(a)(viii)]

(i) DISPOSAL OF ALL SOLID AND HAZARDOUS WASTES

Requirements for disposal of all solid and hazardous wastes in a manner that is protective of human health and the environment and that is compliance with all applicable Federal, state, and local requirements.

NAC 519A.345(8)(a) authorizes the on-site disposal of all solid waste from the demolition of buildings, foundations, facilities, structures, and other equipment, which is inert or unlikely to create an environmental hazard or threaten the health of the general public, provided that a mine operator follows the operating plan submitted with the Class III Landfill Waiver Application and applicable solid waste regulations, pursuant to NAC 444.731. The Division's Bureau of Waste Management issues approval for Class III Landfill Waivers.

NAC 519A.345(8)(c) requires the proper off-site disposal of solid waste from the demolition of buildings, foundations, facilities, structures, and other equipment by a mine operator in a manner that is protective of human health and the environment as stipulated in Title 40 of the CFR. Further conformance with applicable requirements for the disposal of solid wastes in a manner that is protective of human health and the environment are

stipulated in NAC 444.570 to NAC 444.7499. One of those regulations, NAC 444.636, adopts by reference certain provisions of 40 CFR Parts 257 and 258, and selected documents from the U.S. Geological Survey and the EPA.

Hazardous waste generated at a mining facility must be properly disposed of in accordance with Title 40 of the CFR. Pursuant to 40 CFR 261.4(b), certain solid wastes generated by a mining facility are excluded from classification as hazardous waste, including mining overburden and solid waste from the extraction, beneficiation, and processing of ores and minerals. Such solid wastes must be disposed of either in accordance with the solid waste regulations at NAC 444.570 to 444.7499, or the WPC regulations for mining operations at NAC 445A.350 to NAC 445A.447, as applicable.

The SRCE program includes a Waste Disposal – Solid Waste and Hazardous Material module for both on-site and/or offsite disposal of both solid and hazardous waste materials. The module calculates the hauling cost of the non-hazardous solid waste material volume to an on-site designated Class II permitted landfill. The module calculates the volume of material required for the placement of a growth medium earth cover and the reseeding costs based on the landfill acreage. The SRCE module calculates the off-site transport cost for hazardous waste materials to an approved disposal site based upon the distance from the mine to the disposal site. The SRCE User page has the ability to account for a third party contractor quote to accommodate for a specific type of hazardous waste disposal cost.

According to NAC 445A.367, permanent closure means the time in the operating life of a facility when activities for the final stabilization, removal or mitigation of sources are initiated. A "source" is any building, structure, facility or installation from which there is or may be the discharge of pollutants. NAC 445A.378. Stabilization is the condition in which contaminants are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may reasonably be expected to exist at a site. NAC 445A.379.

NAC 445.430 requires that spent ore which has been left on pads or which will be removed from a pad must first demonstrate stability of the discharge effluent from the pads or from the spent ore such that WAD cyanide levels in the effluent are less than 0.2 mg/l; the pH level of the effluent is between 6.0 and 9.0; and contaminants in any effluent from the processed ore which would result from meteoric waters would not degrade waters of the State. If these requirements cannot be achieved, the Department may grant a variance to those conditions if the holder of the permit can demonstrate that the remaining solid material, when representatively sampled, does not contain levels of contaminants that are likely to become mobile and degrade the waters of the State under the conditions that will exist at the site; or the spent ore is stabilized in such a fashion as to inhibit meteoric waters from migrating through the material and transporting contaminants that have the potential to degrade the waters of the State. NAC 445A.430(2)(a-b). Also, the Department

may approve an alternate method for stabilizing ore that has been leached if the holder of the permit can clearly demonstrate that the condtion in which the materials will be left will not create a potential for the waters of the State to be degraded. NAC 445A.430(3).

NAC 445A.431 states that upon termination of the active use of a tailings impoundment, representative samples of the material deposited in the impoundment must be collected and characterized. The tailings must be stabilized during the final closure of a facility so as to inhibit the migration of any contaminant that has the potential to degrade the waters of the State.

NAC 445A.446 state that the permanent closure of a facility must be initiated following the request of the holder of the permit; for a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or when the end of the design life of that process component is reached. NAC 445A.446(1)(a-c). Permanent closure is complete when the requirements contained in NAC 445A.429, NAC 445A.430, and NAC 445A.431 have been achieved. NAC 445A.446(2). The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years. NAC 445A.446(3).

NAC 445A.447(1) requires plans for permanent closure for all sources at a facility. A final plan for permanent closure of any source, which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component. NAC 445A.447(2). Sources, which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions. NAC 445A.447(3). The sources must be closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336. Id.

(ii) CONTAMINATED SOIL DISPOSAL

Requirements for contaminated soil disposal in a manner that is protective of human health and the environment and that is in compliance with all applicable Federal, state, and local requirements.

Title 40 of the CFR sets forth the requirements for contaminated soil disposal that is protective of human health and the environment. Contaminated soil generated at a mining facility that is hazardous waste must be properly disposed in accordance with Title 40 of the CFR. Further requirements for disposal of contaminated soil generated at a mining facility that is not hazardous waste are provided for in the solid waste regulations at NAC 444.570 to NAC 444.7499, and in the corrective action regulations at NAC 445A.226 to NAC 445A.22755.

Releases to soil at Nevada mining facilities must be remediated in accordance with the Division-approved site-specific emergency response plan, required under NAC 445A.398(4), which typically requires full excavation of released contaminants. NAC 445A.441(1) also requires an evaluation following a release. Any soil contaminated by a release that may be impossible or inadvisable to excavate is subject to Nevada corrective action regulations at NAC 445A.2269 to NAC 445A.2272 for assessment of conditions, determination of action levels, and determination of appropriate corrective action, if any, for protection of human health and the environment.

Typically, soil contaminated with mine process fluid that is excavated during remediation of process fluid releases and is not hazardous waste is disposed of on lined containment at the mining facility (e.g., on a synthetically-lined leach pad or tailings impoundment). Non-hazardous petroleum-contaminated soil that is excavated during remediation of petroleum releases is typically disposed of at an off-site treatment or disposal facility authorized to receive such material pursuant to NAC 444.570 to 444.7499) or is disposed of at the mine site in accordance with a Division-approved Petroleum-Contaminated Soil (PCS) Management Plan following the Division guidance document titled, "Guidance for Mine-Site Petroleum-Contaminated Soil (PCS) Management Plans." Approved PCS Management Plans are based on establishment of site-specific maximum soil screening levels for on-site disposal using standard risk assessment methods (e.g., ASTM Method E1739-95, "Risk-Based Corrective Action Applied at Petroleum Release Sites," as cited at NAC 445A.22705).

Final stabilization of any contaminated soil that is disposed of at a Nevada mine facility must be performed in accordance with the WPC closure regulations listed below. Also listed are monitoring requirements that apply to release detection and evaluation.

According to NAC 445A.367, permanent closure means the time in the operating life of a facility when activities for the final stabilization, removal or mitigation of sources are initiated. A "source" is any building, structure, facility or installation from which there is or may be the discharge of pollutants. NAC 445A.378. Stabilization is the condition in which contaminants are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may reasonably be expected to exist at a site. NAC 445A.379.

If the Division determines that there has been a variation in a parameter or element monitored by the site-monitoring system as required in NAC 445A.440 which is caused by the facility and has the potential to degrade the waters of the State, there are two response actions. NAC 445A.441. First, the holder of the permit must conduct and submit an evaluation to the Department which: identifies the source and escape pathways of the elements of concern; determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and identifies methods which can be carried out to remediate the contamination during the continued operation of the facility or at

permanent closure. NAC 445A.441(1)(a-c). Second, the Department must, based on the information provided by the permittee: require the immediate shut down of the process component and the immediate initiation of cleanup activities; allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities; allow continued operation of the process component which is the source of the elements of concern while requiring the facility to continue to control the migration of the contaminant while cleanup activities are postponed; or determine that no remedial action is warranted at the present time. NAC 445A.441(2)(a-d).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

Under NAC 445A.443, monitoring of the beneficiation process must include routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility. Id.

NAC 445A.446 state that the permanent closure of a facility must be initiated following the request of the holder of the permit; for a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or when the end of the design life of that process component is reached. NAC 445A.446(1)(a-c). Permanent closure is complete when the requirements contained in NAC 445A.429, NAC 445A.430, and NAC 445A.431 have been achieved. NAC 445A.446(2). The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years. NAC 445A.446(3).

NAC 445A.447(1) requires plans for permanent closure for all sources at a facility. A final plan for permanent closure of any source, which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component. NAC 445A.447(2). Sources, which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the

waters of the State under the final proposed site conditions. NAC 445A.447(3). The sources must be closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336. Id.

NAC 519A.345(8)(c) requires the proper off-site disposal of solid waste from the demolition of buildings, foundations, facilities, structures, and other equipment by a mine operator in conformance with applicable requirements for the disposal of solid waste to an approved landfill per NAC Chapter 444 regulations for the proper management of hazardous waste generated at mine projects.

The SRCE program includes a Waste Disposal – Solid Waste and Hazardous Material module for both on-site and/or off-site disposal of both solid and hazardous waste materials. The module calculates the hauling cost of the non-hazardous solid waste material volume to an on-site designated Class II permitted landfill. The module calculates the volume of material required for the placement of a growth medium earth cover and the reseeding costs based on the landfill acreage. The SRCE module calculates the off-site transport cost for hazardous waste materials to an approved disposal site based upon the distance from the mine to the disposal site. The SRCE User page has the ability to account for a third party contractor quote to accommodate for a specific type of hazardous waste disposal cost.

(iii) DECONTAMINATION OF BUILDINGS AND STRUCTURES

Requirements to decontaminate buildings and structures to remove and safely dispose of hazardous substances.

NAC 519A.345(8) requires the operator of mine to perform certain types of reclamation including demolition of buildings, foundations, facilities, structures and other equipment to the level of the foundation and burying the demolished items on the site in conformance with applicable requirements for the disposal of solid waste both on and off site.

NAC 519A.270(14) requires the contents of plan for reclamation for mining operation to include the proposed disposition of buildings, equipment, piping, scrap, reagents, and any other equipment and materials.

The following WPC regulations apply to Nevada mine facilities and establish the requirements to decontaminate buildings and structures to remove and safely dispose of hazardous substances and other materials that have the potential to degrade waters of the State. The central requirement is that all such sources are chemically stabilized in accordance with a Division-approved final plan for permanent closure to prevent degradation of waters of the State. Solid wastes associated with such facilities are also subject to the solid waste regulations and to the extent that they are not excluded by 40 CFR 261.4(b), Title 40 of the CFR.

According to NAC 445A.367, permanent closure means the time in the operating life of a facility when activities for the final stabilization, removal or mitigation of sources are initiated. A "source" is any building, structure, facility or installation from which there is or may be the discharge of pollutants. NAC 445A.378. Stabilization is the condition in which contaminants are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may reasonably be expected to exist at a site. NAC 445A.379.

If the Division determines that there has been a variation in a parameter or element monitored by the site-monitoring system as required in NAC 445A.440 which is caused by the facility and has the potential to degrade the waters of the State, there are two response actions. NAC 445A.441. First, the holder of the permit must conduct and submit an evaluation to the Department which: identifies the source and escape pathways of the elements of concern; determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and identifies methods which can be carried out to remediate the contamination during the continued operation of the facility or at permanent closure. NAC 445A.441(1)(a-c). Second, the Department must, based on the information provided by the permittee: require the immediate shut down of the process component and the immediate initiation of cleanup activities; allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities; allow continued operation of the process component which is the source of the elements of concern while requiring the facility to continue to control the migration of the contaminant while cleanup activities are postponed; or determine that no remedial action is warranted at the present time. NAC 445A.441(2)(a-d).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id..

Under NAC 445A.443, monitoring of the beneficiation process must include routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility. Id.

NAC 445A.446 state that the permanent closure of a facility must be initiated following the request of the holder of the permit; for a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or when the end of the design life of that process component is reached. NAC 445A.446(1)(a-c). Permanent closure is complete when the requirements contained in NAC 445A.429, NAC 445A.430, and NAC 445A.431 have been achieved. NAC 445A.446(2). The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years. NAC 445A.446(3).

NAC 445A.447(1) requires plans for permanent closure for all sources at a facility. A final plan for permanent closure of any source, which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component. NAC 445A.447(2). Sources, which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions. NAC 445A.447(3). The sources must be closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336. Id.

NAC 519A.345(8)(c) requires the proper off-site disposal of solid waste from the demolition of buildings, foundations, facilities, structures, and other equipment by a mine operator in conformance with applicable requirements for the disposal of solid waste to an approved landfill per NAC Chapter 444 regulations for the proper management of hazardous waste generated at mine projects.

NAC 519A.345(8)(a) authorizes the on-site disposal of solid waste from the demolition of buildings, foundations, facilities, structures, and other equipment, which is inert or unlikely to create an environmental hazard or threaten the health of the general public, provided that a mine operator follows the operating plan submitted with the Class III Landfill Waiver Application and applicable solid waste regulations, pursuant to NAC 444.731. The Department's Bureau of Waste Management issues approval for Class III Landfill Waivers.

The SRCE program includes a Waste Disposal – Solid Waste and Hazardous Material module for both on-site and/or offsite disposal of both solid and hazardous waste materials. The module calculates the hauling cost of the non-hazardous solid waste material volume to an on-site designated Class II permitted landfill. The module calculates the volume of material required for the placement of a growth medium earth cover and the reseeding costs based on the landfill acreage. The SRCE module calculates the off-site transport cost for hazardous waste materials to an approved disposal site based upon the distance from the mine to the disposal site. The SRCE User page has the ability to account

for a third party contractor quote to accommodate for a specific type of hazardous waste disposal cost.

RESPONSE CATEGORY 9—DRAINAGE [Proposed 40 CFR 320.63(a)(ix)]

GENERAL COMMENTS

Currently, Nevada mine facilities must be constructed to withstand a 24-hour storm event with a 100-year recurrence interval. In Nevada's mine closure guidance, the Division recommends that all closure components be designed to withstand a 24-hour storm event with a 500-year recurrence interval. The Division is considering a change to Nevada regulations that requires closed mine facilities to be designed to withstand a 24-hour storm event with a 500-year recurrence interval. However, current Nevada regulations allow the Division to require a greater level of protection against storm events when appropriate, and the Division has exercised this additional authority on several occasions. Examples of Nevada mine facilities with components that were designed and constructed to contain and withstand a 24-hour storm event with a 500-year or greater recurrence interval include, but are not restricted to, the Mill 5/6-Gold Quarry-James Creek Project, the Goldfield Project, the AA Block Project, and the Liberty Project. Furthermore, in cases where Nevada mine components failed as a result of a larger storm event than they were designed to withstand, the Division used its regulatory authority to require an upgrade of the failed components to withstand a larger storm event (e.g., AA Block Project, Liberty Project). Therefore, although the State of Nevada currently does not have regulations that expressly require mine facilities to contain and withstand a 24-hour storm event with a 200-year recurrence interval, regulatory changes are being considered, and Nevada's track record of requiring upgrades where appropriate demonstrates that additional CERCLA financial assurance is unnecessary for Nevada mine facilities.

(i) MANAGEMENT OF ALL STORMWATER AND SEDIMENT DURING OPERATIONS AND DURING AND FOLLOWING CLOSURE

To satisfy the drainage category component in paragraph (b)(1)(ix) of this section, a plan for the management of all stormwater and sediment generated during operations and during and following closure. For existing units, the plan must provide for permanent stormwater conveyances, ditches, channels and diversions designed to convey the peak flow and ponds and other collection devices designed to store the volume generated during a 24-hour period by a 100-year return interval storm event. For unit that become authorized to operate after the effective date of the Final Rule, the plan must provide for controls designed to store the volume generated during a 24-hour period by a 200-year return interval storm event.

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant

control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id. However, the application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

General Mining Stormwater NPDES Permit NVR300000 issued by the Department authorizes stormwater discharges associated with Standard Industrial Classification (SIC) 10 as derived from Category iii (shown above), defined under 40 CFR 122.26(b)(14) and all construction-related activities as defined by 40 CFR 122.26 (b)(14)(x) and (b)(15) at mine sites (including exploration, development and reclamation activities). Facilities that are authorized under NPDES Permit NVR300000 must submit a new or updated SWPPP to the Department within 60 days of the effective date of the permit or for new dischargers within 30 days of the submitted Notice of Intent to discharge. SWPPPs are to be made available for inspection at the project site or operation covered by this permit. The purpose of the SWPPP is to guide the identification of stormwater pollution sources and the

reduction of their impacts, and otherwise lead to c ompliance with the conditions of this permit. Each of the SWPPP elements must be revised as necessary to maintain accuracy if there are changes in design or construction of the project or if the SWPPP is found to be insufficient.

The permittee is required to make SWPPPs available upon request to the State or local agency approving sediment and erosion plans, gradin g plans, and stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site. The copy of the SWPPP that is required to be kept on the mining site or locally available must be made available to the Department for review at the time of an on-site inspection.

The conditions set in the General Mining Stormwater NPDES Permit are the minimum requirements to maintain and implement an effective stormwater program consistent with U. S. EPA rules (Title 40 of the Code of Feder al Regulations Part 122). BMPs are approved by the U.S. EPA for use in stormwater permits.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants, including but not limited to open pits and pit lakes. See also, NAC 445A.359 and NAC 445A.378. The Nevada guidance document tit led, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

Mine facilities must be monitored for up to 30 year s following the completion of permanent closure actions to prevent degradation of waters of the State. NAC 445A.446(2). NAC 445A.433 establishes the minimum design criteria for process components at mine facilities. This regulation requ ires these components to remain fully functional and fully contain all process fluids inc luding all accumulations from a 24-hour storm event with a 25-year recurrence interval. NAC445A.433(1)(d). The minimum design criteria for process components also require the ability to withstand a 24-hour storm event with a 100-year recurrence interval. NAC 445.433(1)(c). The Division has the discretion to require addition storm capacity based on site-specific factors such as proximity to surface water bodies, depth to groundwater, and proximity t o population. NAC 445A.433(d)(1-3) In exercising this discretion, the Division must us e its best engineering judgment to determine whether more or less engineered containme nt must be provided than the established minimum design criteria. NAC 445A.432. The Nevada guidance document titled, "Preparation Requirements and Guidelines fo r Permanent Closure Plans and Final Closure Reports," recommends that all closure components be designed to withstand run-off from a 24-hour storm event with a 500-year recurrence interval.

WPCP issued by the Division includes a standard provision (WPCP Part II.B.2.E.) that provides a regulatory mechanism for the permittee to submit to the Division for review and approval revised monitoring plan and sampling protocols annually. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

The Division may, if appropriate, require an operator of a mining operation to reclaim solution ponds, settling ponds, and other non-tailings impoundments by backfilling and regrading to approximate the natural land form and restoring the regime of the surface water to the regime that existed before the disturbance. NAC 519A.345(7).

When preparing his or her plan for reclamation an applicant must consider the pre-mining and post-mining use of the land, the technical and economic practicability of the proposed techniques for reclamation, the effectiveness of the proposed activities for reclamation in ensuring public safety, the annual precipitation of the area and its effect on revegetation and the potential for erosion, the existing and proposed post-mining topography in relation to the potential for erosion, the potential for degradation of surface-water or groundwater quality resulting from the proposed activities for reclamation, the visual impact of the reclamation, any other criteria which may affect the applicability of a particular activity for reclamation, including types of soil and the physical and chemical characteristic of the soil, and whether the disturbance was created before or after September 19, 1990. NAC 519A.260(1-9).

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

The SRCE program includes a Diversion Ditch and Sediment Pond calculation module for site-specific construction inputs that can account for a 24-hour, 200-year storm event or greater if determined by the Bureau's Closure Branch. . The module incorporates the reclamation costs based upon the required design dimensions using an excavator for

diversions and a dozer to build sediment control ponds and provides the re-seeding costs for long-term stability. The module has the ability to make design criteria changes based upon an engineer's professional judgment or a regulatory change.

RESPONSE CATEGORY 10—SHORT-TERM OPERATIONS and MAINTENANCE [Proposed 40 CFR 320.63(a)(x)]

(i) MANAGEMENT OF ALL STORMWATER AND SEDIMENT DURING OPERATIONS AND DURING AND FOLLOWING CLOSURE

A plan for groundwater and surface water monitoring to assure that monitoring wells are located to detect an exceedance(s) or trends towards exceedance(s) of the applicable standards, and are detected at the earliest possible occurrence, so that investigation of the extent of contamination and actions to address the source of contamination may be implemented as soon as possible. The plan must be currently in effect and must cover a period of at least five years.

The WPC regulations listed below describe the monitoring requirements for Nevada mining facilities. Once approved by the Division, the fluid management and monitoring plans required in NAC 445A.398 (see below), as well as the other operating plans, facility design plans, and closure plans, are incorporated into the WPCP by reference, and thereby become enforceable pursuant to NRS 445A.690. WPCPs (and the plans incorporated into them) have a maximum term of five years, but must be renewed every five years until permanent closure is complete. NAC 445A.409. Pursuant to NAC 445A.446, the time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years. However, if the Division determines during the 30-year post-closure monitoring period that the facility is not chemically stabilized, then permanent closure is not complete and additional permanent closure actions must be proposed (NAC 445A.447), approved by the Division, and implemented to complete permanent closure, after which another post-closure monitoring period up to 30 years long is initiated.

NAC 445A.398 requires that a permit application include the proposed operating plans for the facility. The plan must include a description and the range of operating conditions for which the components were designed; a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each

surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

The program to monitor the site of a facility mustbe designed to monitor the quality of all ground and surface water which may be affected by t he facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation ofthe facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probabl e escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

If the Division determines that there has been a va riation in a parameter or element monitored by the site-monitoring system as required in NAC 445A.440 which is caused by the facility and has the potential to degrade the w aters of the State, there are two response actions. NAC 445A.441. First, the holder of the permit must conduct and submit an evaluation to the Department which: identifies the source and escape pathways of the elements of concern; determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and identifies methods which can be carried out to remediate the contamination during the continued op eration of the facility or at permanent closure. NAC 445A.441(1)(a-c). Second, t he Department must, based on the information provided by the permittee: require the immediate shut down of the process component and the immediate initiation of cleanup a ctivities; allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities; allow continued operation of th e process component which is the source of the elements of concern while requiring t he facility to continue to control the migration of the contaminant while cleanup activiti es are postponed; or determine that no remedial action is warranted at the present time. NAC 445A.441(2)(a-d).

NAC 445A.442(1) requires the Department to determi ne the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process co ntrolled design conditions. Systems designed to detect and control leaks from process c omponents must be located at the interface of the unit process components and the ad jacent environment and be able to provide the first indication that pollutants or con taminants have escaped their primary containment. Id. The program to monitor the proces s components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or

samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

Under NAC 445A.443, monitoring of the beneficiation process must include routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility. Id.

NAC 445A.446 state that the permanent closure of a facility must be initiated following the request of the holder of the permit; for a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or when the end of the design life of that process component is reached. NAC 445A.446(1)(a-c). Permanent closure is complete when the requirements contained in NAC 445A.429, NAC 445A.430, and NAC 445A.431 have been achieved. NAC 445A.446(2). The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years. NAC 445A.446(3).

NAC 445A.447(1) requires plans for permanent closure for all sources at a facility. A final plan for permanent closure of any source, which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component. NAC 445A.447(2). Sources, which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions. NAC 445A.447(3). The sources must be closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336. Id.

WPCP issued by the Division includes a standard provision (WPCP Part I.A.) that states the following: Specific facility conditions and limitations are outlined that require the facility is constructed, operated, and closed in accordance with the approved designs; all process fluids must be contained within the fluid management system including all meteoric waters which enter the system as a result of the 25-year, 24 hour storm event; and not release or discharge any process or non-process contaminants from the fluid management system.

WPCP issued by the Division contain site-specific monitoring requirements (WPCP Part I.D.) which outline sample locations, analytes, testing, other parameters, and sample frequency. Site-specific permit limits are included as appropriate. Site-specific requirements for ongoing investigations such as pit lake study, risk assessment and waste rock management plan updates are included. Facility limitations, reporting and sampling and analysis requirements are boilerplate entries.

Part II.B.3. of the WPCP for a Nevada mining facility requires reporting to the Division no later than 5:00 PM of the first working day after knowledge of a release of a hazardous substance, petroleum, or coolant, to the environment (including to soil, surface water, or groundwater). If the release exceeds a federal reportable quantity, the release must also be reported to the National Response Center. In the event of a reportable release, or any other permit violation as applicable, Part II.B.4.b. of the WPCP requires an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269, and Part II.B.4.c. of the WPCP requires the Permittee to take all available and reasonable actions, and more frequent and enhanced monitoring, to minimize any impact to waters of the State, domestic animals, wildlife, and public health and safety. These permit requirements are authorized by the corrective action regulations at NAC 445A.227 and NAC 445A.22725.

The Division guidance document titled, "Guidance Document for the Design and Construction of Groundwater Monitoring Wells," provides additional requirements for the location and construction of monitoring wells to ensure that exceedances of applicable groundwater standards are detected at the earliest possible occurrence, so that investigation of the extent of contamination and actions to address the source of contamination may be implemented as soon as possible.

The SRCE program has a specific water monitoring module to calculate the labor for the collection of a pre-determined number of samples and their collection frequency based on the WPCP requirements. The module accounts for analytical sampling costs and reporting. Groundwater sample monitoring is typically required quarterly and the module calculates any sample frequency cost for a minimum period of 5 years to 30 years post-closure mining as determined by the WPCP. Surface water sampling requirements can be accounted for as required by the WPCP.

The SRCE program has a specific module for listing all dewatering wells, production wells and groundwater monitoring wells to calculate the closure abandonment costs based upon the depth to groundwater.

(ii) INSPECTION AND MONITORING OF EROSION, REVEGETATION, AND RECLAMATION

A plan for inspection and monitoring of erosion and revegetation to ensure reclamation success.

WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that states as follows: "The Permittee shall inspect all control devices, systems, and facilities weekly, and during (when possible) and after major storm events. These inspections are performed to detect evidence of: Deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices." These requirements

remain in effect as long as the WPCP is in effect, which is up to 30 years after permanent closure is completed. NAC 445A.446(3). Any severe erosion detected must be repaired pursuant to Part II.A.2. of the WPCP, which requires the Permittee to maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems to achieve compliance with the terms and conditions of the permit and applicable regulations.

As part of its plan for reclamation, a permittee must provide for a productive post-mining use of the land. NAC 519A.275(1). NAC 519A.275 sets forth the requirements for productive post-mining use of land. The productive post-mining use of the land must be submitted with a plan for reclamation and may not identify a use of the land or degree of productivity which is identical to the pre-mining use or degree of productivity. NAC 519A.275(2). Land which is returned to its pre-mining use or reclaimed after mining or exploration to a level of productivity which is generally consistent with the pre-mining level of productivity or the level of productivity of the surrounding land shall be deemed to be a productive post-mining use. Land which is reclaimed to a degree of productivity which is less productive than its pre-mining use shall be deemed to be productive if the operator takes reasonable measures to: ensure adequate fertilization of the soil; ensure the quantity and quality of the topsoil or growth medium; and establish a productive post-mining use of the land within site-specific economic and technical constraints of the area. NAC 519A.275(3). Land subject to excessive erosion will not be deemed to be reclaimed to a productive post-mining use unless excessive erosion existed before mining or exists on the adjacent land. NAC 519A.275(4). Evidence of the excessive erosion must be provided by the operator to the Division. Id. If the operator is not the owner of the surface of the affected lands, the Division shall consider any comments received from the landowner in making the final determination that the proposed plan for reclamation adequately provides for a productive post-mining use of the land. NAC 519A.275(5).

NAC 519A.315 sets forth the requirements for abandonment of a site and selection of appropriate activities for reclamation of site. The abandonment of a site must be conducted in a manner that ensures public safety, encourages techniques to minimize adverse visual effects, and establishes a safe and stable condition suitable for the productive post-mining use of the land. In selecting appropriate activities for reclamation for a particular site, techniques which minimize adverse visual impact must be considered. Ensuring public safety requires minimizing hazards in areas which the public may have legal access by, if applicable: removing or burying structures, equipment, reagents or scrap; sealing or securing shafts, tunnels and adits pursuant to NAC 513.390; plugging drill holes; leaving slopes in a structurally stable condition; and restricting access to areas which cannot practicably be made safe. Achieving a "stable condition" requires conditions at the site to be resistant to excessive erosion and structurally competent to withstand normal geologic and climatic conditions without significant failure that would be a threat to public safety and the environment.

NAC 519A.330(1)(a) states that the operator shall select and establish species of plants that will result in vegetation productivity comparable to that growing on the affected (disturbed) land before commencement of an exploration project or mine operation. A designated environmental scientist assigned to the project is the same individual who performs the field inspections to verify the mine components have been built according to the approved Reclamation Plan and to ensure that modification to the plan are consistent with the approved Reclamation Permit. The mine operator's staff are notified of observed erosion issues and reported in a formal inspection letter to the operator. An approved Reclamation Permit includes an Attachment B document; Nevada Guidelines for Successful Revegetation for the NDEP, the BLM, and the USFS. This interagency document requires the operator to stabilize the site and establish productive desired plant communities to meet a post-mining land use. This also requires the treatment of noxious weeds. The timeframe to determine revegetation success of the vegetative growth on a reclaimed site may be evaluated for release no sooner than during the third growing season after earthwork and re-seeding have been documented. The operator is required to file a revegetation report based upon the coverage and density of plant species to initiate the final field inspection prior to the revegetation surety release.

The Bureau's Reclamation Branch has a team of environmental scientists who are assigned to perform on-site annual inspections of permitted active mines to evaluate the mine facility for disturbances and determine if affected areas have erosion issues, revegetation success or non-vegetation success on concurrent reclamation, or any control measures to address noxious weeds. Excessive erosion is recorded in the site's inspection report and considered to be unnecessary and undue degradation. The mine operator must perform proper routine maintenance of roads, stormwater diversions, earth cover systems, revegetation and weed control measures in order to obtain any financial surety release of an affected facility.

The SRCE program has a specific reclamation cost module for the yearly calculation of the labor and reporting cost for a minimum 3-year post-closure period for vegetation monitoring. The monitoring module has a percentage acreage input to provide for additional vegetation costs based upon any acreage which has been determined to have failed in the revegetation effort. The post-closure vegetation monitoring years can be adjusted higher to suit site-specific criteria.

(iii) MAINTENANCE AND REPAIRS

A plan for routine maintenance and repairs to roads, stormwater conveyances and collection devices and revegetation maintenance (e.g. weed controls) and repairs (e.g. areas of revegetation failure).

WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that states as follows: "The Permittee shall inspect all control devices, systems, and facilities weekly, and

during (when possible) and after major storm events. These inspections are performed to detect evidence of: Deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices." These requirements remain in effect as long as the WPCP is in effect, which is up to 30 years after permanent closure is completed. NAC 445A.446(3). Any deterioration, malfunction, improper operation, leakage, or severe erosion detected during the routine inspections must be maintained or repaired pursuant to Part II.A.2. of the WPCP, which requires the Permittee to maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems to achieve compliance with the terms and conditions of the permit and applicable regulations.

The SRCE program has a specific Construction Management reclamation cost module to calculate support staff and the maintenance costs necessary to complete the closure of the mine project. This includes road maintenance, stormwater diversion repairs, temporary office spaces, portable bathrooms and dust control water trucks during reclamation.

The Bureau's Reclamation Branch has a team of environmental scientists who are assigned to perform on-site annual inspections of permitted active mines to evaluate the mine facility for disturbances and determine if affected areas have erosion issues, revegetation success or non-vegetation success on concurrent reclamation, or any control measures to address noxious weeds. Excessive erosion is recorded in the site's inspection report and considered to be unnecessary and undue degradation. The mine operator must perform proper routine maintenance of roads, stormwater diversions, earth cover systems, revegetation and weed control measures in order to obtain any financial surety release of an affected facility.

As part of its plan for reclamation, a permittee must provide for a productive post-mining use of the land. NAC 519A.275(1). NAC 519A.275 sets forth the requirements for productive post-mining use of land. The productive post-mining use of the land must be submitted with a plan for reclamation and may not identify a use of the land or degree of productivity which is identical to the pre-mining use or degree of productivity. NAC 519A.275(2). Land which is returned to its pre-mining use or reclaimed after mining or exploration to a level of productivity which is generally consistent with the pre-mining level of productivity or the level of productivity of the surrounding land shall be deemed to be a productive post-mining use. Land which is reclaimed to a degree of productivity which is less productive than its pre-mining use shall be deemed to be productive if the operator takes reasonable measures to: ensure adequate fertilization of the soil; ensure the quantity and quality of the topsoil or growth medium; and establish a productive post-mining use of the land within site-specific economic and technical constraints of the area. NAC 519A.275(3). Land subject to excessive erosion will not be deemed to be reclaimed

to a productive post-mining use unless excessive er osion existed before mining or exists on the adjacent land. NAC 519A.275(4). Evidence of the excessive erosion must be provided by the operator to the Division. Id. If he operator is not the owner of the surface of the affected lands, the Division shall consider any comments received from the landowner in making the final determination that th e proposed plan for reclamation adequately provides for a productive post-mining use of the land. NAC 519A.275(5).

NAC 519A.315 sets forth the requirements for abando nment of a site and selection of appropriate activities for reclamation of site. The abandonment of a site must be conducted in a manner that ensures public safety, e ncourages techniques to minimize adverse visual effects, and establishes a safe and stable condition suitable for the productive post-mining use of the land. In selecting appropriate activities for reclamation for a particular site, techniques which minimize adverse visual impact must be considered. Ensuring public safety requires minimizing hazards in areas which the public may have legal access by, if applicable: removing or buryin g structures, equipment, reagents or scrap; sealing or securing shafts, tunnels and adit s pursuant to NAC 513.390; plugging drill holes; leaving slopes in a structurally stable condition; and restricting access to areas which cannot practicably be made safe. Achieving a "stable condition" requires conditions at the site to be resistant to excessive erosion an d structurally competent to withstand normal geologic and climatic conditions without significant failure that would be a threat to public safety and the environment.

The SRCE program has a specific reclamation cost mo dule for the yearly calculation of labor and reporting cost for a minimum 3-year post -closure period for vegetation monitoring. The monitoring module has a percentage acreage input to provide for additional vegetation costs based upon any acreage which has been determined to have failed in the revegetation effort. The post-closure vegetation monitoring years can be adjusted higher to suit site-specific criteria.

RESPONSE CATEGORY 11—INTERIM OPERATIONS and MAINTENANCE [Proposed 40 CFR 320.63(a)(xi)]

(i) INTERIM EMERGENCY WATER MANAGEMENT AND TREATME NT

A plan for the purpose of interim emergency water management to provide information on how process water systems, interceptor wells, seepage collection systems and storm water management systems are operated and maintained to prevent discharges in the event the regulator assumes management of the mine facility. The plan must include process water flow charts showing electrical system requirements, pump operations, seepage collection and interceptor well operations and applicable operation and maintenance requirements. The plan must be updated as major process water system changes occur that would affect the interim emergency water management plan.

NAC 445A.398(5) requires an applicant to submit a t emporary closure plan, which describes the activities that must be maintained du ring the time of temporary closure. NAC 445A.382 defines temporary closure as the cessa tion of operation of a process component for more than 30 days as a result of a pl anned or unplanned activity. NAC 445A.444(1-2) also states that such temporary closu res may include, but is not restricted to, planned seasonal closure, interruptions to prov ide planned periods of quiescence for metallurgical or operating reasons, other planned c onditions that interrupt the beneficiation process, interruptions due to unforeseen weather events, interruptions due to a failure in a major system component or process failure which causes a fluid management shut down, or a discontinuation of opera tions due to litigation. The temporary closure plan (and other operating plans) must be updated with each as-built report to reflect any modifications made during construction. NAC 445A.427(1).

Initially, such temporary closure plans are general in nature and typically lack sufficient detail for the Division to assume management of themine facility; however, an unplanned temporary closure must be reported to the Division within 30 days after it begins per NAC 445A.445, and upon notification the Division requires (among other things) submittal of a more detailed temporary closure plan, if warranted, in case the Division or its emergency response contractor has to assume management of the mine facility. In such an event, the Division will already have a flow chart of the processing circuit, a fluid management plan including any seepage collection systems, and a monitoring plan as part of previous WPCP applications, and if the site has had groundwa ter degradation and has installed interceptor wells, their operation will be described in the associated corrective action plan and in the WPCP monitoring requirements. NAC 445A.3 98(1-4). The updated more detailed version of the temporary closure plan must provide electrical system requirements, instructions for pump operations, and any other necessary operation and maintenance requirements.

The Division maintains a contract with a consulting firm to provide emergency environmental assessment, mitigation, and remediati on (EMAR) on short notice in the event of a potential impact to human health and the environment if such an event at a Nevada mine facility (or other regulated facility) is not being adequately addressed by the permittee or other responsible party. Under thesecircumstances, the Division would work with the EMAR contractor to identify, assess, and r emediate a contaminated abandoned mine site, and, if needed, implement the temporaryclosure plan to manage process fluids, prevent releases, and protect waters of the state.

Payments for deposit into a Trust Fund for Short Te rm Fluid Management, as required by NAC 519A.392, are currently held with the State of Nevada Office of the State Controller in the current 2017 amount of $1,290,160.80. The T rust Fund accrues interest and has never been utilized since its inception in 2000. The purpose of the Trust Fund is to provide a third party mine contractor the necessary monies to address an emergency water management situation at a mine site in the case tha t a mine operator fails to perform

these legal duties. If the Trust Fund account were to be used for an emergency situation, the monies would be replaced with the IFM surety amount currently posted by the mine operator with the government agency holding the bond.

Attachment A of a Reclamation Permit titled, "Interim Fluid Management (IFM) and Process Fluid Stabilization (PFS) Bond Release," states as follows: When the closure process of a heap leach pad (HLP) and/or tailings storage facility (TSF) is undertaken in a controlled manner by the operator, release of the project bond IFM and PFS amounts may occur at the following phases/intervals of the closure process: IFM – when E or ET Cells have been constructed and the steady state drain-down of process fluids can be managed entirely within the E/ET Cells; PFS Phase I – recirculation of excess process fluids is no longer required and demonstration can be made that only active evaporation of process fluids is required; PFS Phase II – the process fluid drain-down rate is less than evaporation rate and demonstration can be made that process fluids can be managed without active evaporation, conversion of process pond(s) to E/ET Cells has been completed, and the cover system on the HLP and/or the TSF has been constructed; PFS Phase III – drain-down managed entirely within the E/ET Cells, demonstration is made that E/ET Cells have functioned without overtopping for a minimum of 5 years; PFS Evaporation Costs – at completion of PFS (costs include evaporation equipment and power costs).

(ii) ENGINEERING DESIGNS RELATED TO INTERIM WATER MANAGEMENT AND TREATMENT

A conceptual engineering document that describes the processes and methods that are expected to be used to reduce the quantities of process water in storage and circulation inventory at the end of mine production until all process solutions are eliminated and steady-state discharge is reached, in preparation for long-term water management or treatment. The document must include:

(A) A description and list of the current or proposed process water management units and inventories of process water;

(B) A description of the modifications to the process water management system required to create an efficient process water reduction system;

(C) The operation and maintenance requirements for the system with material take-offs of sufficient detail to prepare an engineering-level cost estimate; and

(D) An estimate of the required water reduction period based on the water reduction calculations provided in the plan to be used for planning and operation and maintenance cost calculations.

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of

contaminants into groundwater or subsurface migrati on pathways so that any release from the facility will not degrade waters of the State. 445A.433(1)(a).

NAC 445A.398(6) requires submittal of a Tentative Plan for Permanent Closure (TPPC) with all applications for WPCPs for Nevada mining facili ties. The TPPC describes the procedures, methods and schedule for stabilizing sp ent process materials, and the estimated cost for the procedures. The process mat erial that must be stabilized includes the process water in storage and circulation. NAC 4 45A.398(6)(b). Per NAC 445A.447(2), an Final Plan for Permanent Closure (FPPC) must be submitted at least two years before the anticipated permanent closure of a process comp onent. The FPPC replaces the more conceptual TPPC with a detailed engineering document that is ready for implementation, and is therefore of sufficient detail to provide the basis for preparation of an engineering-level cost estimate. The FPPC must describe proced ures for chemical stabilization such that contaminants are bound or contained so as to p revent them from degrading waters of the state under the environmental conditions that may reasonably be expected to exist at the site. See, NAC 445A.379. Within 90 days after notifying the Division of an unplanned temporary closure, the permittee must begin to eval uate procedures for permanent closure of the affected process components, and unl ess otherwise approved by the Division, within 270 days after notification of an unplanned temporary closure, the permittee shall initiate the approved procedures fo r permanent closure. NAC 445A.445(1)(b),(3).

Nevada WPC regulations do not specify that the inve ntory of process solution in storage and circulation must be reduced during temporary or permanent closure. Rather, Nevada regulations stipulate that all sources must be remo ved, mitigated, or stabilized such that the contaminants are bound or contained so as to pr event them from degrading waters of the state under the environmental conditions that may reasonably be expected to exist at the site See, NAC 445A.367 and NAC 445A.379. Ho wever, in practice, the reduction of process solution inventory is an important componen t of most final plans for permanent closure in Nevada. As stated in the Division's gui dance document titled, "Guidelines and Procedures for the Permanent Closure of Bioreactors , E and ET Cells," Bioreactors, E and ET Cells have been proven to be effective tools for the management of ... continuous, low flow solutions. E and ET Cells remove or minimize the volume of source solution through passive evaporation or evapotranspiration.

NAC 445A.447(1) states that plans for permanent closure are required for all sources at a facility. A final plan for permanent closure of an y source which has been identified as a process component must be submitted to the Departme nt at least 2 years before the anticipated permanent closure of that process compo nent. NAC 445A.447(2). Sources which have not been classified as process component s must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be

closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336. NAC 445A.447(3).

The HLDE program was developed by JBR Environmental Consultants, Inc. and Newmont Mining Corporation as a tool for estimating of heap leach pad draindown curves. The draindown curves are designed to be used for reclamation bonding purposes. The quality of collected data determines the accuracy of the results produced by the HLDE estimates become more accurate. Site-specific parameter values are always recommended. The information should be available in the WPCP application prepared during permitting of the leach pad or from various operations/process staff at the mine site. When these data are not available the following methods can be used to obtain the values.

The Nevada PFCE is an estimation tool for the calculation of bond amounts required for IFM and PFS. The IFM calculation includes the electric and power deposit required by NV Energy. The reclamation bond amount for PFS requires that the timeframes and volumes of process solutions are managed during closure of process components and obtained from a model that estimates solution draindown curves. The HLDE model estimates heap leach draindown curves and may be downloaded from the BLM Nevada Locatable Minerals Hard Rock Mining webpage: http://www.blm.gov/nv/st/en/prog/minerals/mining.html. The PFCE calculator can be downloaded at: http://ndep.nv.gov/bmrr/cost_heap-leach-closure.htm.

PFCE Version 1.1 is now available for closure of heap leach pads and tailings storage facilities. NDEP, BLM, and Industry representatives jointly developed PFCE, which is an estimation tool for the calculation of bond amountsrequired for IFM and PFS. Bonding for IFM and PFS ensures that funds are available for managing the heap leach and tailings storage facility process fluids during closure. Detailed definitions of IFM and Phases I-IV of PFS are available below - see IFM and PFS Definitions. PFCE utilizes standardized labor crews, equipment, materials, and unit costs that will be updated yearly to calculate bond amounts based on the specific heap leach pad or tailings storage facility physical parameters, volume of fluids, and timeframes required for IFM and PFS. Timeframes and volumes of fluids may be obtained from a model that estimates heap leach draindown curves. One such model is the HLDE program that may be downloaded from the BLM Nevada Locatable Minerals Hard Rock Mining webpage.

Although the use of PFCE is not required, operators using it in conjunction with the HLDE model may realize a quicker preparation time for the calculation of the IFM and PFS components of the reclamation cost estimate; as well as a faster agency approval time due to standardization of costs and methodologies.

RESPONSE CATEGORY 12—LONG-TERM OPERATIONS and MAINTENANCE [Proposed 40 CFR 320.63(a)(xii)]

(i) GROUNDWATER AND SURFACE WATER MONITORING

A plan for groundwater and surface water monitoring to assure that additional monitoring wells are located to detect an exceedanc e(s) or trends towards exceedance(s) of the applicable standards and that they are detected at the earliest possible occurrence, so that investigation of the extent of contamination and actions to address the source of contamination may be implemented as soon as possible. The plan must be currently in effect, and must cover a period of at least 200 years.

The program to monitor the site of a facility mustbe designed to monitor the quality of all ground and surface water which may be affected by t he facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation ofthe facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probabl e escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

If the Division determines that there has been a va riation in a parameter or element monitored by the site-monitoring system as required in NAC 445A.440 which is caused by the facility and has the potential to degrade the w aters of the State, there are two response actions. NAC 445A.441. First, the holder of the permit must conduct and submit an evaluation to the Department which: identifies the source and escape pathways of the elements of concern; determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and identifies methods which can be carried out to remediate the contamination during the continued op eration of the facility or at permanent closure. NAC 445A.441(1)(a-c). Second, t he Department must, based on the information provided by the permittee: require the immediate shut down of the process component and the immediate initiation of cleanup a ctivities; allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities; allow continued operation of th e process component which is the source of the elements of concern while requiring t he facility to continue to control the migration of the contaminant while cleanup activiti es are postponed; or determine that no remedial action is warranted at the present time. NAC 445A.441(2)(a-d).

NAC 445A.442(1) requires the Department to determi ne the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process co ntrolled design conditions. Systems designed to detect and control leaks from process c omponents must be located at the interface of the unit process components and the ad jacent environment and be able to

provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

Under NAC 445A.443, monitoring of the beneficiation process must include routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility. Id.

NAC 445A.447(1) states that plans for permanent closure are required for all sources at a facility. A final plan for permanent closure of any source which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component. NAC 445A.447(2). Sources which have not been classified as process components must be evaluated at the end of their operating life to determine the potential forpollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336. NAC 445A.447(3).

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

WPCP issued by the Division includes a standard provision (WPCP Part II.B.2.E.) that provides a regulatory mechanism for the permittee to submit to the Division annually for review and approval a revised monitoring plan and sampling protocols. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly, and during (when possible) and after major storm events. For closure WPCPs the frequency may be reduced, but not more than necessary, if the site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system. These inspections are performed to detect evidence of: (1) Deterioration, malfunction, or improper operation of control or monitoring systems; (2) Sudden changes in the data from any monitoring device; (3) The presence of liquids in leak

detection systems; and (4) Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

WPCP issued by the Division includes a standard provision (WPCP Part I.A.) that provides for Specific facility conditions and limitations that require the facility to be constructed, operated, and closed in accordance with the approved designs; all process fluids contained within the fluid management system including all meteoric waters which enter the system as a result of the 25-year, 24 hour storm event; and any process or non-process contaminants from the fluid management system not to be released or discharged.

WPCP issued by the Division contains site-specific monitoring requirements (WPCP Part I.D.) which outline sample locations, analytes, testing, other parameters, and sample frequency. Site-specific permit limits are included as appropriate. Site-specific requirements for ongoing investigations such as pitlake study, ecological risk assessment, and waste rock management plan updates are also included. Facility limitations, reporting, and sampling and analysis requirements are boilerplate entries in each permit (WPCP Parts I.G., II.B.1., II.B.2., and II.E., respectively). The groundwater and surface water analyses required in each permit must be reported to the Division, typically quarterly and annually, on Division forms that specify the applicable water quality standards; this facilitates detection of any exceedance(s) of standards at the earliest possible occurrence.

Nevada regulations do not specifically limit the effective time period for the fluid management and monitoring plans to a period of at least 200 years. Instead, NAC 445A.409 requires that a valid WPCP, which includes these and other operating plans, must be maintained until permanent closure is complete. Permanent closure refers to the time in the operating life of a facility when activities for the final stabilization, removal, or mitigation of pollutant sources are initiated. See, NAC 445A.367 and NAC 445A.378. Therefore, if any pollutant sources are not fully stabilized, removed, or mitigated, permanent closure is not complete, and a valid permit, including its associated monitoring plan, must be maintained.

NDEP, BLM and USFS have entered into an MOU agreement to jointly establish Long-Term Trust Funds. The long-term trust fund amount is established using the SRCE reclamation input modules to calculate site-specific long-term monitoring and maintenance requirement costs. Currently the BLM holds long-term trusts on eight (8) Nevada hard rock mines.

The SRCE program has a specific water monitoring module to calculate the labor for the collection of a pre-determined number of samples and their collection frequency based on the WPCP requirements. The module accounts for analytical sampling costs and reporting. Groundwater sample monitoring is typically required quarterly and the module calculates any sample frequency cost for a minimum period of 5 years to 30 years post-

closure mining as determined by the WPCP. Surface water sampling requirements can be accounted for as required by the WPCP.

The SRCE program has a specific module for listing all dewatering wells, production wells and groundwater monitoring wells to calculate the closure abandonment costs based upon the depth to groundwater.

(ii) INSPECTION AND MONITORING OF MASS STABILITY, EROSION, AND RECLAMATION

A plan for inspection and monitoring of mass stability, erosion and revegetation certified by a professional engineer to ensure reclamation success.

NAC 445A.433 specifies minimum design requirements applicable to all process components. The engineering designs must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2). The engineering design report must be prepared and submitted by a professional engineer registered in Nevada. NAC 445A.397(1)

WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly, and during (when possible) and after major storm events. For closure permits the frequency may be reduced, but not more than necessary, if the site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system. These inspections are performed to detect evidence of: (1) Deterioration, malfunction, or improper operation of control or monitoring systems; (2) Sudden changes in the data from any monitoring device; (3) The presence of liquids in leak detection systems; and (4) Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

WPCP issued by the Division includes a standard provision (WPCP Part II.A.2.) that states that the permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of the permit.

The Bureau's Regulation and Closure Branch personnel inspect all permitted mine facilities annually, semi-annually, or quarterly, depending on the level of site activity and the potential for degradation of waters of the State or other noncompliance. The results of each inspection are summarized in correspondence to the permittee, including required actions to address any items of concern and appropriate timeframes for the actions to be

performed. The Bureau follows up with the permittee to ensure that the items have been adequately addressed. In the case of significant a nd/or repeated compliance issues, the Bureau follows a progressive enforcement policy to ensure protection of waters of the State and compliance with applicable statutes and r egulations, which may include the assessment of penalties up to $25,000 for each day of each violation (NRS 445A.700 and BMRR Civil Penalty Policy).

The SRCE program has a specific Construction Manage ment reclamation cost module to calculate support staff and the maintenance costs n ecessary to complete the closure of the mine project. This includes road maintenance, s tormwater diversion repairs, temporary office spaces, portable bathrooms and dus t control water trucks during reclamation.

The Bureau's Reclamation Branch has a team of envir onmental scientists who are assigned to perform on-site annual inspections of permitted active mines to evaluate the mine facility for disturbances and determine if aff ected areas have erosion issues, revegetation success or non-vegetation success on concurrent reclamation, or any control measures to address noxious weeds. Excessive erosion is recorded in the site's inspection report and considered to be unnecessary and undue degradation. The mine operator must perform proper routine maintenance of roads, stormw ater diversions, earth cover systems, revegetation and weed control measures in order to obtain any financial surety release of an affected facility.

As part of its plan for reclamation, a permittee must provide for a productive post-mining use of the land. NAC 519A.275(1). NAC 519A.275 sets forth the requirements for productive post-mining use of land. The productive post-mining use of the land must be submitted with a plan for reclamation and may not identify a use of the land or degree of productivity which is identical to the pre-mining use or degree of produc tivity. NAC 519A.275(2). Land which is returned to its pre-mini ng use or reclaimed after mining or exploration to a level of productivity which is generally consistent with the pre-mining level of productivity or the level of productivity of the surrounding land shall be deemed to be a productive post-mining use. Land which is reclai med to a degree of productivity which is less productive than its pre-mining use shall be deemed to be productive if the operator takes reasonable measures to: ensure adequate ferti lization of the soil; ensure the quantity and quality of the topsoil or growth mediu m; and establish a productive post-mining use of the land within site-specific economic and technical constraints of the area. NAC 519A.275(3). Land subject to excessive erosion will not be deemed to be reclaimed to a productive post-mining use unless excessive er osion existed before mining or exists on the adjacent land. NAC 519A.275(4). Evidence of the excessive erosion must be provided by the operator to the Division. Id. If he operator is not the owner of the surface of the affected lands, the Division shall consider any comments received from the landowner in making the final determination that th e proposed plan for reclamation adequately provides for a productive post-mining use of the land. NAC 519A.275(5).

NAC 519A.315 sets forth the requirements for abandonment of a site and selection of appropriate activities for reclamation of site. The abandonment of a site must be conducted in a manner that ensures public safety, encourages techniques to minimize adverse visual effects, and establishes a safe and stable condition suitable for the productive post-mining use of the land. In selecting appropriate activities for reclamation for a particular site, techniques which minimize adverse visual impact must be considered. Ensuring public safety requires minimizing hazards in areas which the public may have legal access by, if applicable: removing or burying structures, equipment, reagents or scrap; sealing or securing shafts, tunnels and adits pursuant to NAC 513.390; plugging drill holes; leaving slopes in a structurally stable condition; and restricting access to areas which cannot practicably be made safe. Achieving a "stable condition" requires conditions at the site to be resistant to excessive erosion and structurally competent to withstand normal geologic and climatic conditions without significant failure that would be a threat to public safety and the environment.

The SRCE program has a specific reclamation cost module for the yearly calculation of labor and reporting cost for a minimum 3-year post-closure period for vegetation monitoring. The monitoring module has a percentage acreage input to provide for additional vegetation costs based upon any acreage which has been determined to have failed in the revegetation effort. The post-closure vegetation monitoring years may be adjusted higher to suit site-specific criteria.

NAC 519A.330(1)(a) states that the operator shall select and establish species of plants that will result in vegetation productivity comparable to that growing on the affected (disturbed) land before commencement of an exploration project or mine operation. A designated environmental scientist assigned to the project is the same individual who performs the field inspections to verify the mine components have been built according to the approved Reclamation Plan and to ensure that modification to the plan are consistent with the approved Reclamation Permit. The mine operator's staff are notified of observed erosion issues and reported in a formal inspection letter to the operator. An approved Reclamation Permit includes an Attachment B document; Nevada Guidelines for Successful Revegetation for the NDEP, the BLM, and the USFS. This interagency document requires the operator to stabilize the site and establish productive desired plant communities to meet a post-mining land use. This also requires the treatment of noxious weeds. The timeframe to determine revegetation success of the vegetative growth on a reclaimed site may be evaluated for release no sooner than during the third growing season after earthwork and re-seeding have been documented. The operator is required to file a revegetation report based upon the coverage and density of plant species to initiate the final field inspection prior to the revegetation surety release.

The SRCE program has a specific reclamation cost module to calculate the yearly labor and report cost for a minimum 3-year post-closure period for vegetation monitoring. The

monitoring module has a percentage acreage input to provide for additional vegetation costs based on the acreage which may have failed in the revegetation effort. The post-closure vegetation monitoring years can be adjusted higher to suit site-specific criteria.

(iii) MAINTENANCE OF ROADS, STORMWATER CONVEYANCES/COLLECTION DEVICES, COVER SYSTEMS, REVEGETATION, AND MONITORING WELLS

A plan for routine maintenance and repairs to roads, stormwater conveyances and collection devices, cover systems, and revegetation maintenance (e.g. weed controls) and repairs (e.g. areas of revegetation failure) and monitoring wells.

WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly, and during (when possible) and after major storm events. For closure permits the frequency may be reduced, but not more than necessary, if the site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system. These inspections are performed to detect evidence of: (1) Deterioration, malfunction, or improper operation of control or monitoring systems; (2) Sudden changes in the data from any monitoring device; (3) The presence of liquids in leak detection systems; and (4) Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

WPCP issued by the Division includes a standard provision (WPCP Part II.A.2.) that states that the permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the permittee to achieve compliance with the terms and conditions of the permit.

The SRCE program has a specific Construction Management reclamation cost module to calculate support staff and the maintenance costs necessary to complete the closure of the mine project. This includes road maintenance, stormwater diversion repairs, temporary office spaces, portable bathrooms and dust control water trucks during reclamation.

The Bureau's Reclamation Branch has a team of environmental scientists who are assigned to perform on-site annual inspections of permitted active mines to evaluate the mine facility for disturbances and determine if affected areas have erosion issues, revegetation success or non-vegetation success on concurrent reclamation, or any control measures to address noxious weeds. Excessive erosion is recorded in the site's inspection report and considered to be unnecessary and undue degradation. The mine operator must perform proper routine maintenance of roads, stormwater diversions, earth cover systems, revegetation and weed control measures in order to obtain any financial surety release of an affected facility.

As part of its plan for reclamation, a permittee must provide for a productive post-mining use of the land. NAC 519A.275(1). NAC 519A.275 sets forth the requirements for productive post-mining use of land. The productive post-mining use of the land must be submitted with a plan for reclamation and may not identify a use of the land or degree of productivity which is identical to the pre-mining use or degree of productivity. NAC 519A.275(2). Land which is returned to its pre-mining use or reclaimed after mining or exploration to a level of productivity which is generally consistent with the pre-mining level of productivity or the level of productivity of the surrounding land shall be deemed to be a productive post-mining use. Land which is reclaimed to a degree of productivity which is less productive than its pre-mining use shall be deemed to be productive if the operator takes reasonable measures to: ensure adequate fertilization of the soil; ensure the quantity and quality of the topsoil or growth medium; and establish a productive post-mining use of the land within site-specific economic and technical constraints of the area. NAC 519A.275(3). Land subject to excessive erosion will not be deemed to be reclaimed to a productive post-mining use unless excessive erosion existed before mining or exists on the adjacent land. NAC 519A.275(4). Evidence of the excessive erosion must be provided by the operator to the Division. Id. If the operator is not the owner of the surface of the affected lands, the Division shall consider any comments received from the landowner in making the final determination that the proposed plan for reclamation adequately provides for a productive post-mining use of the land. NAC 519A.275(5).

NAC 519A.315 sets forth the requirements for abandonment of a site and selection of appropriate activities for reclamation of site. The abandonment of a site must be conducted in a manner that ensures public safety, encourages techniques to minimize adverse visual effects, and establishes a safe and stable condition suitable for the productive post-mining use of the land. In selecting appropriate activities for reclamation for a particular site, techniques which minimize adverse visual impact must be considered. Ensuring public safety requires minimizing hazards in areas which the public may have legal access by, if applicable: removing or burying structures, equipment, reagents or scrap; sealing or securing shafts, tunnels and adits pursuant to NAC 513.390; plugging drill holes; leaving slopes in a structurally stable condition; and restricting access to areas which cannot practicably be made safe. Achieving a "stable condition" requires conditions at the site to be resistant to excessive erosion and structurally competent to withstand normal geologic and climatic conditions without significant failure that would be a threat to public safety and the environment.

The SRCE program has a specific reclamation cost module for the yearly calculation of the yearly labor and reporting cost for a minimum 3-year post-closure period for vegetation monitoring. The monitoring module has a percentage acreage input to provide for additional vegetation costs based upon any acreage which has been determined to have failed in the revegetation effort. The post-closure vegetation monitoring years can be adjusted higher to suit site-specific criteria.

RESPONSE CATEGORY 13—WATER TREATMENT [Proposed 40 CFR 320.63(a)(xiii)]

(i) WATER MANAGEMENT AND TREATMENT DURING CLOSURE

A plan for closure water management and water treatment consisting of a conceptual engineering document that describes the processes and methods that are expected to be used for long-term management or treatment of seepage and includes an analysis of the expected operational life of each long-term water management or water treatment system, including collection/interceptor systems, until each system is no longer needed to protect water quality and applicable standards are met. The plan must describe whether active or passive treatment is proposed and include all operations and maintenance activities required to support all collection and treatment systems. The plan must describe the long-term water management and water treatment systems with sufficient detail, including locations of key components, expected operational life, material take-offs, and capital, operational and maintenance costs to prepare an engineering-level cost estimate. The plan must be currently in effect and must cover a period of at least 200 years.

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a).

NAC 445A.424(1)(b)prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.397 requires that the engineering design report include an evaluation of structural stability. Nevada WPC regulations do not distinguish between critical and non-critical structures at mine facilities. Nevada does not differentiate between critical and non-critical structures on a site-specific basis and sets stability requirements based on site-specific needs and criteria.

NAC 445A.398 requires that a permit application include the proposed operating plans for the facility. The plan must include a description and the range of operating conditions for which the components were designed; a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id. However, the application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1). In Nevada's mine closure guidance, the Division recommends that facilities be constructed to withstand a 500-year, 24-hour event. The Division is considering a change to Nevada closure regulations to require that closed facilities at a minimum are designed to contain the 500-year, 24-hour storm event if containment is necessary and withstand the erosional effects of a 500-year, 24-hour storm event.

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must takeinto consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

NAC 445A.435 sets forth the minimum design criteria for ponds. Under that section, all ponds which are intended to contain process fluids must have a primary synthetic liner and a secondary liner. NAC 445A.435(1). Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point which is accessible and has a system for recovering those fluids. Id. When the material between the liners is unable to collect, transport and remove all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down. NAC 445A.435(2). Ponds which are primarily designed to contain excess quantities of process fluids that result from storm events for limited periods may be constructed with a single liner if approved by the Department. NAC 445A.435(3). Ponds containing non-process fluids may be required to be lined depending on their potential to degrade waters of the State. NAC 445A.435(4).

NAC 445A.436 states that all vats, tanks and other containers which confine process fluids and can be visually inspected for leaks do not require double liners if an area for secondary containment equal to 110 percent of the largest container is provided. Vats, tanks or other containers that are partially buried and cannot be visually inspected must have a system to detect leaks. Id.

NAC 445A.438 establishes the minimum design criteria for liners. When a liner is is placed on native materials, soil liners must have a minimum thickness of 12 inches and be compacted in lifts which are no more than 6 inches thick. NAC 445A.438(1). A soil liner must have a permeability of not more than that exhibited by 12 inches of $1x10^{-7}$ centimeters per second (cm/sec) material. Id. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of $1x10^{-11}$ cm/sec. NAC 445A.438(2). The Division is required to review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner including the type of foundation, slope and stability; the over liner protection and provisions for hydraulic relief; the load and means of applying load; the compatibility of a liner with waste rock drainage; the complexity of the leak detection and recovery systems (if present); the depth from the surface to all groundwater; and the liner's ability to remain functionally competent until permanent closure has been completed. NAC 445A.438(3)(a-g).

A quality assurance and quality control program mus t be developed and carried out for the construction of all liner systems. NAC 445A.439 A summary of the quality control data must be submitted to the Department with the as-built drawings. Id.

The program to monitor the site of a facility mustbe designed to monitor the quality of all ground and surface water which may be affected by t he facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation ofthe facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probabl e escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determi ne the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process co ntrolled design conditions. Systems designed to detect and control leaks from process c omponents must be located at the interface of the unit process components and the ad jacent environment and be able to provide the first indication that pollutants or con taminants have escaped their primary containment. Id. The program to monitor the proces s components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

A WPCP issued by the Division includes a standard p rovision (WPCP Part II.B.2.E.) that provides a regulatory mechanism for the permittee to submit to the Division annually for review and approval, a revised monitoring plan and sampling protocols. Changes in monitoring frequency or the incorporation of additi onal monitoring points may require modification of the Permit and payment of modification fees.

A WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, syste ms, and facilities weekly (for closure permits consider relaxing frequency, but not more t han necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and duri ng (when possible) and after major storm events. These inspections are performed to d etect evidence of: Deterioration, malfunction, or improper operation of control or mo nitoring systems; sudden changes in the data from any monitoring device; the presence o f liquids in leak detection systems;

and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

The SRCE program has a supplemental User Tab module with the ability to implement calculations and reclamation costs related to any water treatment if determined to be required by the WPCP. The User page reclamation cost subtotal is linked to the SRCE summary page to include it in the total reclamationsurety amount and make it part of the calculated percentage government in-direct administration costs.

Based upon WPCP determinations of long-term monitoring requirements, NDEP, BLM and USFS have entered into an MOU to jointly establishLong-Term Trust Funds. The long-term trust fund amount is established using the SRCE reclamation input modules to calculate site-specific long-term monitoring and maintenancerequirement costs. Currently the BLM holds long-term trusts on eight (8) Nevada hard rock mines.

(ii) DISPOSAL OF WATER TREATMENT SLUDGES AND RESIDUES

A plan for disposal of wastes produced from water treatment that is protective of human health and the environment and meets applicable Federal, state, and local requirements.

NAC 445A.424(1)(b)prohibits a mine facility from degrading groundwater to the extent that a state or federal drinking water standard is exceeded or the WAD cyanide concentration exceeds 0.2 mg/L, or from degrading surface water to the extent that the quality of surface water of higher quality is lowered below that allowed by NRS 445A.565. Pursuant to NAC 445A.441, if the Division determines if seepage and/or a discharge does not, or is not expected to, meet applicable water quality standards, the Division has the authority to require the Permittee to implement an approved plan to eliminate the degradation and meet the standards per NAC 445A.424. Such a plan may include a capture and treatment system (however, the capture efficiency is not dictated by regulation; only the resultant water quality is), or another method, such as elimination of influent water or chemical stabilization of the source material. NAC 445A.379 defines stabilization as the condition that results from contaminants in a material are bound or contained so as to prevent them from degrading waters of the State under the environmental conditions that may be reasonably expected to exist at a site.

NAC 445A.397 requires that the engineering design report include an evaluation of structural stability. Nevada WPC regulations do not distinguish between critical and non-critical structures at mine facilities. Nevada does not differentiate between critical and non-critical structures on a site-specific basis and sets stability requirements based on site-specific needs and criteria.

NAC 445A.398 requires that a permit application include the proposed operating plans for the facility. The plan must include a description and the range of operating conditions for which the components were designed; a plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. NAC 445A.398(1-2). The operating plan must include the following: a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded; a plan for monitoring the facility which describes the water quality in the area; the monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility; an analytical profile of each surface and groundwater that may be affected by the operation of the facility; and the locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples. NAC 445A.398(2-3).

NAC 445A.432 and NAC 445A.433 set-forth the minimum design criteria and universal requirements for process components. These statutes establish minimum contaminant control technologies and require consideration of the site and operating conditions in designing individual process components. See generally, Id. Based on site characterization, best engineering judgment must be used to determine the degree to which designs must provide more or less protection through engineered containment. Id. However, the application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility. NAC 445A.433(4).

In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge and all sources must be designed to minimize releases of contaminants into groundwater or subsurface migration pathways so that any release from the facility will not degrade waters of the State. NAC 445A.433(1)(a),(b). Process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval; and the primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. NAC 445A.433(1)(c),(d). The Department has the option of requiring additional containment based on the proximity to surface water bodies, depth to groundwater, and proximity to population. NAC 445A.433(1)(d)(1-3). In exercising this discretion, the Division must use its best engineering judgment to determine whether more or less engineered containment must be provided than the established minimum design criteria. NAC 445A.432. Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans. NAC 445A.433(1).

The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period. NAC 445A.433(1)(e). The engineering designs must takeinto consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity. NAC 445A.433(1)(f). Additional containment may be required in areas where groundwater is considered to be near the surface. NAC 445A.433(2).

The program to monitor the site of a facility mustbe designed to monitor the quality of all ground and surface water which may be affected by the facility. NAC 445A.440(1). The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. Id. Final monitoring requirements must be established by the Department. NAC 445A.440(2). Baseline data must be collected before operation ofthe facility. NAC 445A.440(3). In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the Department. NAC 445A.440(4). The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. NAC 445A.440(5).

NAC 445A.442(1) requires the Department to determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. Id. The program to monitor the process components must include a schedule of activities, a roster of current job titles for persons responsible for and involved in the monitoring program, and the form and frequency of reports to be submitted to the Department. NAC 445A.442(2)(a-c). The Department may randomly collect information or samples for reference. NAC 445A.442(2). The cost of analyzing samples may be placed upon the holder of the permit. Id.

NAC 445A.447 requires submittal of a plan for permanent closure (i.e., actions to prevent degradation of waters of the State) of any portion of a mining operation that may release pollutants. See also, NAC 445A.359 and NAC 445A.378,

The Nevada guidance document titled, "Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports," recommends that closure components used in such mitigating actions be designed to withstand the 24-hour, 500-year storm event.

A WPCP issued by the Division includes a standard provision (WPCP Part II.B.2.E.) that provides a regulatory mechanism for the permittee to submit to the Division for review and approval of revised monitoring plan and sampling protocols annually. Changes in monitoring frequency or the incorporation of additional monitoring points may require modification of the Permit and payment of modification fees.

A WPCP issued by the Division includes a standard provision (WPCP Part I.I.) that requires the permittee to inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of: Deterioration, malfunction, or improper operation of control or monitoring systems; sudden changes in the data from any monitoring device; the presence of liquids in leak detection systems; and severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

Other authorities and resources that are considered for regrading requirements include the State of Nevada Handbook of Best Management Practices, Sections 9-1 through 9-6; local county/municipal ordinances; site-specific conditions; and WPCP requirements and limitations.

NAC 519A.270(18) requires that a mine reclamation plan include a description of any necessary stabilization, management, control or treatment of mine-impacted waters from waste rock dumps, open pits, and underground mines (NAC 519A.345).

NAC 519A.360.4(b),(c) require a mine operator to bond for the costs of process fluid stabilization, and the costs of stabilization, management, control, and treatment of mine-impacted waters to prevent or mitigate the degradation of waters of the State or the adverse effects to human health, terrestrial, and avian life.

NAC 519A.068 defines process fluid stabilization as binding, containing or treating contaminants in a fluid, including meteoric water that comes into contact with a heap leach pad or tailings impoundment, to prevent contaminants from degrading waters of the State through naturally occurring environmental conditions which may be reasonably expected at a site.

NAC 519A.360.4(g)(1),(2) requires that a mine operator bond for the costs of any ongoing or long-term activities which are required to maintain the effectiveness of reclamation or are necessary in lieu of reclamation; or ensure the continuation of post-reclamation stabilization, management, control and treatment ofmine-impacted waters to protect the waters of this State, including, periodic clean-out of sediment basins and ponds used to

collect mine-impacted waters or maintenance of berm s and fences, which are used to prevent access to areas which pose a threat to the public safety.

The SRCE program has a supplemental User Tab module with the ability to implement calculations and reclamation costs related to any w ater treatment if determined to be required by the WPCP. The User page reclamation cos t subtotal is linked to the SRCE summary page to include it in the total reclamationsurety amount and make it part of the calculated percentage government in-direct administration costs.

The SRCE program includes a Waste Disposal – Solid Waste and Hazardous Material module for both on-site and/or off-site disposal of both solid and hazardous waste materials. The module calculates the hauling cost o f the non-hazardous solid waste material volume to an on-site designated Class IIpermitted landfill. The module calculates the volume of material required for the placement o f a growth medium earth cover and the reseeding costs based on the landfill acreage.The SRCE module calculates the off- site transport cost for hazardous waste materials to anapproved disposal site based upon the distance from the mine to the disposal site. The SRCE User page has the ability to account for a third party contractor quote to accommodate for a specific type of hazardous waste disposal cost.

INFORMATION SUBMISSION and RECORDKEEPING REQUIREMENTS

§ 320.64 Information submission and recordkeeping requirements

(a) Owners or operators must submit to EPA informationthat supports the cost calculation including the maximum financial responsibility amou nt, final financial responsibility amount, information to support all inputs to the fo rmula, and information to support reductions to the maximum financial responsibility amount in accordance with paragraph (c), including necessary components of ap plicable enforceable documents. Such information must provide sufficient detail abo ut facility conditions to allow the Administrator to review the formula calculation and determine if the inputs to the formula were accurate, and should include site char acterization information and evaluations that support the enforceable documents provided to support reductions.

Nevada mine operators are required to submit a plan of operations, a corresponding reclamation plan, and the associated reclamation co sts for approval under an MOU between the Division, the BLM and/or the USFS for a n issuance of a reclamation permit. In the case of a mine proposed on all private land, the Bureau, under authority delegated by the Division, serves as the agency adjudicatingthe reclamation surety amount from the operator for the reclamation liability at the mine site. The financial responsibility amount must be reviewed, approved and the surety amount mu st be posted prior to any construction disturbance.

Per NAC 519A.360(1) the operator must provide a surety in an amount sufficient to ensure reclamation of the entire area to be affected by his or her project or operation, or a portion of the area to be affected if, as a condition of the issuance of the permit, filing additional surety is required before the operator disturbs land not covered by the initial surety. The amount of surety required must be based on an estimate of the cost of executing the plan for reclamation which would be incurred by the state or federal agency having jurisdiction over the land. NAC 519A.360(2). The operator's estimate of the cost for reclamation must be based on either the costs of equipment rental, operation and labor which are appropriate for the geographic area undergoing reclamation and which would otherwise be incurred by a third-party contractor who performed the reclamation; estimated costs provided by an outside contractor; or any other method which is acceptable to the Administrator of the Division, the BLM, the USFS, or another federal land management agency, if applicable. NAC 519A.360(3)(a-c). In determining the cost of executing the plan for reclamation, the operator shall consider all activities in the plan for reclamation that are required by NAC 519A.010 to NAC 519A.415, inclusive, or chapter 519A of NRS, including, if appropriate: earth moving, regrading, stabilization of heaps and dumps, recontouring of roads and erosion control; process fluid stabilization; stabilization, management, control and treatment of mine-impacted waters; revegetation, preparation of seedbed and planting; demolition of buildings and other structures; removal and disposal or salvage of buildings, structures, equipment, piping, scrap and reagents; and any ongoing or long-term activities which are required to maintain the effectiveness of reclamation or are necessary in lieu of reclamation or ensure the continuation of post-reclamation stabilization, management, control and treatment of mine-impacted waters to protect the waters of this State. NAC 519A.360(4)(a-g). In addition, the operator must consider other activities which include but are not limited to periodic clean-out of sediment basins and ponds used to collect mine-impacted waters or maintenance of berms and fences which are used to prevent access to areas which pose a threat to the public safety; equipment mobilization and demobilization; and administration and management by the Division, the BLM, the USFS, and another federal land management agency, if applicable. NAC 5194.360(4).

In determining the cost of executing the plan for reclamation, the operator shall not consider the cost of any activity not included in the plan for reclamation or not required by NAC 519A.010 to 519A.415, inclusive, or chapter 519A of NRS. NAC 519A.360(5). This subsection does not limit in any way the authorities of the BLM, the USFS, or another federal land management agency to require surety for purposes other than those of NAC 519A.010 to 519A.415, inclusive, and chapter 519A of NRS. Id.

The operator must submit, on a form provided by the Division or in a similar manner documentation for his or her calculation of the cost of executing the plan for reclamation, the source of his or her estimates of costs; a list of specific activities which will be performed to reclaim the affected acres such as those in NAC 519A.360 for each type of

disturbance, and the total acreage of each disturba nce requiring the same activity to be performed for reclamation. NAC 519A.365(1-4).

NAC 519A.370(1) requires the Division to review the operator's estimate of the cost for reclamation and determine if the estimate is reasonably sufficient to conduct all required reclamation. If the Division determines that the e stimated cost of executing the plan for reclamation is insufficient to conduct all requiredreclamation, the application for a permit shall be considered to be incomplete. NAC 519A.370(2).

(b) Owners or operators must retain the calculation of the financial responsibility amount and the information supporting it for a period of t hree years following submission to EPA.

NAC 519A.380 the standardization of reclamation costs are updated yearly to account for inflation or deflation (SRCE Program). NAC 519A.380(1) requires that within 3 years after the effective date of the permit and at least every 3 years thereafter, an operator shall review the amount of surety filed to cover the cost of reclamation to determine whether it is still adequate to execute the approved plan f or reclamation taking inflation into consideration. The operator is required to notify the Division, the BLM, the USFS, and another federal land management agency, if appropri ate, of the results of the review of the surety and within 120 days after the review req uest a decrease in the surety; or increase the surety, to execute the plan for reclamation. NAC 519A.380(2)(a-b).

Per the State of Nevada Record Retention Policy, Mi ning Reclamation Permit files are retained for a period of 35 years after the final r edemption of the reclamation bond has occurred and 20 years for bonding files after all r eclamation activities have been completed. NRS 239.080 states that an official Sta te record may be disposed of only in accordance with a schedule for retention and dispos ition which is approved by the State records committee.

NAC 519A.385(1) states the Division may release a surety either in whole or in part at the request of the operator. The entire surety must no t be released until all of the requirements of the permit have been fulfilled, except that a portion of the surety covering the reclamation of a discrete part of a disturbance must be released when the requirements of the permit regarding the discrete p art of the disturbance have been fulfilled. NAC 519A.385(2)(a). That portion of the surety covering a discrete activity must be released when the requirements of the permit reg arding that discrete activity have been fulfilled. NAC 519A.385(2)(b). Except as othe rwise provided in subsection 3, if revegetation is part of the plan for reclamation, 6 0 percent of the posted surety must be released upon completion of the earthwork. NAC 519. 385(2)(c). After revegetation has been performed by the operator on the regraded land s, according to the approved plan for reclamation, the Division may release an additi onal 25 percent of the surety. Id. The remaining surety must not be released until all req uirements of the permit have been

satisfied. Id. Upon transfer of a permit to a new operator and upon acceptance of the required surety from the new operator, the Division shall release the surety posted by the original operator. NAC 519A.385(2)(d). Percentages greater than those specified in paragraph (c) of subsection 2 may be released if th e operator demonstrates that the remaining surety is sufficient to ensure completion of the required reclamation. NAC 519A.385(3). Within 30 days after receiving a reque st for release of a surety, the agency holding the surety, or its designated agent pursuan t to NRS 519A.140, shall inspect the permitted exploration project or mining operation to determine whether the operator has fulfilled the requirements of his or her permit and either release the surety or portion thereof as requested, or notify the operator that the requested surety will not be released, the reasons why and the measures necessary to satis fy the requirements of the permit. NAC 519A.385(4)(a),(b). If a request to release is denied, the operator may appeal the decision pursuant to NAC 519A.415. NAC 519A.385(5). The 30 days within which an agency must respond to a request to release a suret y pursuant to subsection 3 may be extended if weather conditions prevent an inspectio n of the reclaimed area. NAC 519A.385(6).

THIRD-PARTY CERTIFICATION

§ 320.65 Third-Party Certification The financial responsibility amount submitted by owners or operators in compliance with § 320.63 must be certi fied by an independent qualified professional engineer as defined in § 320.62.

Nevada has a wide range of third party environmental engineering consultants who use the SRCE program, which includes reclamation costs that have been vetted by BMRR, the BLM, the USFS, and Nevada mine operators. The labor costs are updated using Davis Bacon Prevailing Wages on an annual basis. The agencies have the ability to request third party contractor quotes at any time for estimating a site-specific and/or unique reclamation activity cost. BMRR has a team of environmental scientists with earth science degrees and analysis support from an in-house professional reclamation engineer to validate reclamation costs submitted to the agency. The BMRR also retains a BLM engineer liaison in our offices three days per week and one of the liaisons functions is to assist with the audit of financial responsibility cost estimates.

APPENDIX 1--REGULATION and CLOSURE BRANCHES

Nevada NAC 445A Mining Regulations

Nevada Bureau of Mining Regulation and Reclamation

Water Pollution Control Permit Regulation

Nevada Administrative Code 445A.350 – 445A.447

MINING FACILITIES

General Provisions

445A.350 Definitions.
445A.351 "Area of review" defined.
445A.352 "As-built drawings" defined.
445A.353 "Beneficiation" defined.
445A.354 "Best engineering judgment" defined.
445A.355 "Commission" defined.
445A.356 "Contaminant" defined.
445A.357 "Degrade" defined.
445A.358 "Department" defined.
445A.359 "Facility" defined.
445A.360 "Fluid management system" defined.
445A.361 "Groundwater" defined.
445A.362 "Liner" defined.
445A.363 "Meteoric waters" defined.
445A.364 "Mining" defined.
445A.365 "Modify materially" defined.
445A.366 "Ore" defined.
445A.367 "Permanent closure" defined.
445A.368 "Permit" defined.
445A.369 "Person" defined.
445A.370 "Pilot facility" and "testing facility" defined.
445A.371 "Placer mining" defined.
445A.372 "Point source" defined.
445A.373 "Pollutant" defined.
445A.374 "Pond" defined.
445A.375 "Process component" defined.
445A.376 "Process fluid" defined.
445A.377 "Small-scale facility" defined.
445A.378 "Source" defined.
445A.379 "Stabilized" defined.
445A.380 "Storm event" defined.

445A.381 "Tailings impoundment" defined.
445A.382 "Temporary closure" defined.
445A.383 "WAD cyanide" defined.
445A.384 "Waters of the State" defined.
445A.385 "Zero discharge" defined.
445A.386 Adoption of publication by reference.
445A.387 Scope; effect of noncompliance.
445A.388 Appeal of action taken by Department.

Permits for Facilities

445A.390 Permit required; operation under existing permit.
445A.391 Application for permit: Preliminary meeting with representative of Department.
445A.392 Application for permit: Construction or modification of process component; abbreviated application.
445A.393 Application for permit: Definition of site conditions, process materials, characteristics of waste and impacts.
445A.394 Application for permit: Submission; contents.
445A.395 Contents of application: Assessment of area of review.
445A.396 Contents of application: Meteorological report; analysis of samples.
445A.397 Contents of application: Engineering design report; specifications for fluid management system.
445A.398 Contents of application: Proposed operating plans.
445A.399 Preparation of plan for seasonal closure of process components.
445A.400 Initial review of application and notification of applicant; failure to provide information; submission of incorrect information.
445A.401 Action by Department upon application.
445A.402 Notice of intent to issue permit or deny application.
445A.403 Request for hearing on application; submission of comments on draft permit.
445A.404 Scheduling of public hearing on application.
445A.405 Notice of hearing: Publication; contents.
445A.406 Submission of testimony at hearing.
445A.407 Issuance of statement responding to comments on draft permit.
445A.408 Action by Director of Department after period for public comment.
445A.409 Issuance and maintenance of permit; maximum term and renewal of permit.
445A.410 Permit for small-scale facility: Contents of application; limitation on holding; applicability of minimum design criteria.
445A.411 Pilot facility or testing facility: Conditions for issuance of permit.
445A.412 Pilot facility or testing facility: Contents of application for permit.
445A.413 Pilot facility or testing facility: Construction of application indicating need to conduct testing beyond 2 years.
445A.414 Permit for facility using physical separation methods.
445A.415 Granting of permit which allows lower level of engineered containment than required by minimum design criteria.

445A.4155 Conditions pursuant to which modification to design of facility with existing permit does not require new public notice; extension of term of existing permit disallowed.
445A.416 Minor modification of existing permit; modification of operating plans.
445A.417 Major modification of existing permit.
445A.418 Fee for modification of permit.
445A.419 Transfer of permit to new owner or operator.
445A.420 Renewal of permit; operation of facility pending issuance of new permit.

Operation and Design of Facilities

445A.424 Limitations on degradation of water; exemptions.
445A.425 Process components in existence on September 1, 1989: Standards; additional monitoring.
445A.426 Notice of intent to commence active operation of process component.
445A.427 Duties of holder of permit upon construction or modification of process component.
445A.428 Level of containment required for placer mining or flotation facilities.
445A.429 Procedures required to prevent release of contaminants; requirements concerning impoundments.
445A.430 Stabilization of spent ore.
445A.431 Stabilization of tailings.
445A.432 Minimum design criteria: Generally.
445A.433 Minimum design criteria: Universal requirements; areas where groundwater is near surface; proximity of new process components to dwellings; liability for degradation of water.
445A.434 Minimum design criteria: Leach pads and other nonimpounding surfaces designed to contain and promote horizontal flow of process fluids.
445A.435 Minimum design criteria: Ponds.
445A.436 Minimum design criteria: Vats, tanks and other containers which confine process fluids.
445A.437 Minimum design criteria: Tailings impoundments.
445A.438 Minimum design criteria: Liners.
445A.439 Program required to control quality of construction of liner systems.
445A.440 Monitoring: Site of facility.
445A.441 Monitoring: Procedure upon variation in parameter or element being monitored.
445A.442 Monitoring: Process components.
445A.443 Monitoring: Beneficiation process.
445A.444 Examples of planned and unplanned temporary closures.
445A.445 Procedure upon unplanned temporary closure of process component.
445A.446 Permanent closure of facility.

445A.447 Plans for permanent closure; sources not classified as process components.

NAC 445A.350 Definitions. (NRS 445A.425, 445A.465) As used in NAC 445A.350 to 445A.447, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.351 to 445A.385, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.242)

NAC 445A.351 "Area of review" defined. (NRS 445A.425, 445A.465) "Area of review" means the area surrounding a facility which is to be evaluated.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24202)

NAC 445A.352 "As-built drawings" defined. (NRS 445A.425, 445A.465) "As-built drawings" means engineering drawings which reflect all changes made from original engineering drawings during the construction of a facility so that a representation of the facility as constructed is portrayed.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24204)

NAC 445A.353 "Beneficiation" defined. (NRS 445A.425, 445A.465) "Beneficiation" means the dressing or processing of ores for:

1. Regulating the size of a desired product;
2. Removing unwanted constituents; and
3. Improving the quality, purity or assay grade of a desired product.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24206)

NAC 445A.354 "Best engineering judgment" defined. (NRS 445A.425, 445A.465) "Best engineering judgment" means that decision by the Department which, after evaluating the available alternatives and levels of technology presented by the applicant, results in an acceptable design for containing contaminants from a facility in order to protect the waters of the State.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24208)

NAC 445A.355 "Commission" defined. (NRS 445A.425, 445A.465) "Commission" means the State Environmental Commission.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2421)

NAC 445A.356 "Contaminant" defined. (NRS 445A.425, 445A.465) "Contaminant" has the meaning ascribed to it in NRS 445A.325.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24212)

NAC 445A.357 "Degrade" defined. (NRS 445A.425, 445A.465) "Degrade" means to alter the physical or chemical properties of or to cause a change in the concentration of any substance in the waters of the State in violation of the standards established pursuant to NAC 445A.424.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24214)

NAC 445A.358 "Department" defined. (NRS 445A.425, 445A.465) "Department" means the State Department of Conservation and Natural Resources.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24216)

NAC 445A.359 "Facility" defined. (NRS 445A.425, 445A.465) "Facility" means all portions of a mining operation, including, but not limited to, the mine, waste rock piles, or piles, beneficiation process components, processed ore disposal sites, and all associated buildings and structures. The term does not include any process component or nonprocess compone nt which is not used for mining or mineral production, and has not been used in the past for m ining or mineral production as part of an operation which is active as of September 1, 1989.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24218)

NAC 445A.360 "Fluid management system" defined. (NRS 445A.425, 445A.465) "Fluid management system" means that portion of a facility which has been constructed to contain or transport process fluids.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.2422)

NAC 445A.361 "Groundwater" defined. (NRS 445A.425 , 445A.465) "Groundwater" means all subsurface water comprising the zone of saturation, including perched zones of saturation, which could produce usable water.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24222)

NAC 445A.362 "Liner" defined. (NRS 445A.425, 445A.465) "Liner" means a continuous layer of man-made or reconstructed natural materials, or a combi nation thereof which restricts the downward or lateral movement of liquids.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24224)

NAC 445A.363 "Meteoric waters" defined. (NRS 445A.425, 445A.465) "Meteoric waters" means any form of precipitation falling from the earth's atmosphere.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24226)

NAC 445A.364 "Mining" defined. (NRS 445A.425, 445A.465) "Mining" means the process of extracting ores from the earth.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24228)

NAC 445A.365 "Modify materially" defined. (NRS 445A.425, 445A.465) "Modify materially" means to make:

1. A change in the design or location of a process component, or the characteristics of the waste stream which significantly alters the potential to degrade the waters of the State; or

2. A significant change in the environmental monitoring systems which results in a reduction in the effectiveness of that monitoring system.

The term does not include changes necessitated during construction to suit field conditions, or changes which do not affect point sources.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2423)

NAC 445A.366 "Ore" defined. (NRS 445A.425, 445A.465) "Ore" means the naturally occurring material from which a metallic mineral of economic value can be extracted.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24232)

NAC 445A.367 "Permanent closure" defined. (NRS 445A.425, 445A.465) "Permanent closure" means that time in the operating life of a facility when activities for the final stabilization, removal or mitigation of sources are initiated.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24234)

NAC 445A.368 "Permit" defined. (NRS 445A.425, 445A.465) "Permit" means a written document issued pursuant to NRS 445A.300 to 445A.730, inclusive, which describes the responsibilities and obligations of the holder of the permit during the construction, operation, and temporary or permanent closure of a facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24236)

NAC 445A.369 "Person" defined. (NRS 445A.425, 445A.465) "Person" has the meaning ascribed to it in NRS 445A.390.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24238)

NAC 445A.370 "Pilot facility" and "testing facility" defined. (NRS 445A.425, 445A.465) "Pilot facility" or "testing facility" means a facility which is constructed principally to obtain data on the effectiveness of the beneficiation process to determine:

1. The feasibility of developing a body of ore; or

2. The optimum operating conditions of the process.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2424)

NAC 445A.371 "Placer mining" defined. (NRS 445A.425, 445A.465) "Placer mining" means the extraction and processing of ores solely by gravity separation methods.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24242)

NAC 445A.372 "Point source" defined. (NRS 445A.425, 445A.465)

1. "Point source" has the meaning ascribed to it in NRS 445A.395.

2. The term includes wheeled, track, stationary or floating equipment used for earth-moving activity from which pollutants are or may be discharged.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A by R096-01, 1-18-2002)

NAC 445A.373 "Pollutant" defined. (NRS 445A.425, 445A.465) "Pollutant" has the meaning ascribed to it in NRS 445A.400.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24246)

NAC 445A.374 "Pond" defined. (NRS 445A.425, 445A.465) "Pond" means a process component which stores, confines or otherwise significantly impedes the horizontal movement of process fluids. The term does not include tailings impoundments, vats, tanks or other nonearthen containers.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24248)

NAC 445A.375 "Process component" defined. (NRS 445A.425, 445A.465) "Process component" means a distinct portion of a constructed facility which is a point source.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.2425)

NAC 445A.376 "Process fluid" defined. (NRS 445A.425, 445A.465) "Process fluid" means any liquids, including meteoric waters, which are intentionally or unintentionally introduced into any portion of the beneficiation process components.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24252)

NAC 445A.377 "Small-scale facility" defined. (NRS 445A.425, 445A.465) "Small-scale facility" means a facility which chemically processes less than 36,500 tons of ore per year and no more than 120,000 tons of ore for the life of the project at any one permitted site.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A 9-6-91) — (Substituted in revision for NAC 445.24254)

NAC 445A.378 "Source" defined. (NRS 445A.425, 445A.465) "Source" means any building, structure, facility or installation from which there is or may be the discharge of pollutants.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24256)

NAC 445A.379 "Stabilized" defined. (NRS 445A.425, 445A.465) "Stabilized" means the condition which results when contaminants in a material are bound or contained so as to prevent them from degrading the waters of the State under the environmental conditions that may reasonably be expected to exist at a site.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24258)

NAC 445A.380 "Storm event" defined. (NRS 445A.425, 445A.465) "Storm event" means a precipitation event with a specified frequency of return and specified period of duration as defined in Precipitation-Frequency Atlas of the Western United States, vol. VII-Nevada.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2426)

NAC 445A.381 "Tailings impoundment" defined. (NRS 445A.425, 445A.465) "Tailings impoundment" means a process component which is the final depository for processed ore discharged from a mill.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24262)

NAC 445A.382 "Temporary closure" defined. (NRS 445A.425, 445A.465) "Temporary closure" means the cessation of the operation of a process component for more than 30 days as a result of a planned or unplanned activity.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24264)

NAC 445A.383 "WAD cyanide" defined. (NRS 445A.425, 445A.465) "WAD cyanide" means the cyanide concentration as determined by Method C, Weak Acid Dissociable Cyanide, D2036-082, Part 31 of American Society of Testing Materials Book of Standards.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24266)

NAC 445A.384 "Waters of the State" defined. (NRS 445A.425, 445A.465) "Waters of the State" has the meaning ascribed to it in NRS 445A.415.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24268)

NAC 445A.385 "Zero discharge" defined. (NRS 445A.425, 445A.465) "Zero discharge" means the standard of performance for the protection of surface waters which requires the containment of all process fluids.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2427)

NAC 445A.386 Adoption of publication by reference. (NRS 445A.425, 445A.465) The Department hereby adopts by reference Precipitation-Frequency Atlas of the Western United States, vol. VII-Nevada, stock number 0317-00161, prepared by the National Weather Service and National Oceanic and Atmospheric Administration, United States Department of Commerce. The publication may be obtained by mail from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 979050, St. Louis, Missouri 63197-9000, or by toll-free telephone at (866) 512-1800, at a cost of $8.45.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24272)

NAC 445A.387 Scope; effect of noncompliance. (NRS 445A.425, 445A.465)

1. NAC 445A.350 to 445A.447, inclusive, apply to facilities that have the potential to degrade the waters of the State. Surface disturbance activities such as stripping and the stockpiling of ore, when conducted in a manner which presents an insignificant potential to degrade waters of the State are not subject to

those sections. NAC 445A.350 to 445A.447, inclusive, do not apply to facilities involved solely in the mining and processing of sand and gravel, cinders, diatomaceous earth, slate, shale, gypsum, clay or crushed stone.

2. NAC 445A.350 to 445A.447, inclusive, do not replace or in any way affect the responsibility of a person to comply with any other regulations and rules of practice and procedure administered by the Department or any other governmental agency.

3. A permit issued pursuant to NAC 445A.350 to 445A.447, inclusive, may be revoked for noncompliance with the provisions of NAC 445A.350 to 445A.447, inclusive, in accordance with the procedures established in NRS 445A.600.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24274)

NAC 445A.388 Appeal of action taken by Department. (NRS 445A.425, 445A.465, 445A.605) Any person aggrieved by an action taken by the Department pursuant to NAC 445A.350 to 445A.447, inclusive, may appeal to the Commission in accordance with NRS 445A.605.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24276)

Permits for Facilities

NAC 445A.390 Permit required; operation under existing permit. (NRS 445A.425, 445A.465)

1. All facilities in existence on September 1, 1989, must obtain a valid permit within 3 years after September 1, 1989.

2. After July 1, 1990, no person may begin construction of a new process component, or materially modify an existing process component, without first obtaining a permit or permit modification, or the concurrence of the Department that the construction or modification is in conformance with the existing permit.

3. The operator of a process component for which a permit has been obtained may continue to operate that process component under the conditions of the existing permit. This applies to all process components which have been reviewed and approved by the Department but have not yet been issued a permit and are either in the process of being constructed or are operating in accordance with an approval granted as of September 1, 1989. Where detailed plans have not yet been submitted to the Department for a process component that has been conceptually approved under either an existing permit or approved without an existing permit, the process component must meet the regulations in effect when construction of the new process component is initiated.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2428)

NAC 445A.391 Application for permit: Preliminary meeting with representative of Department. (NRS 445A.425, 445A.465) Before submitting an application for a permit, a prospective applicant must meet with a representative of the Department to discuss:

1. The proposed location of the facility;

2. The operating plans for the process components; and

3. The physical characteristics of the facility's proposed site as required on the application for the permit.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24282)

NAC 445A.392 Application for permit: Construction or modification of process component; abbreviated application. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in subsection 2, a person wishing to construct or modify materially a process component at a facility must file an application for a permit pursuant to NAC 445A.394.

2. Persons wishing to construct a small-scale, pilot, testing, placer or other facility which relies solely on physical separation methods to process ore may file an abbreviated application for a permit pursuant to NAC 445A.410, 445A.412 and 445A.414. The application must be accompanied by the appropriate fee as required by NAC 445A.232.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24284)

NAC 445A.393 Application for permit: Definition of site conditions, process materials, characteristics of waste and impacts. (NRS 445A.425, 445A.465) The failure or the inability to define adequately site conditions, process materials and the probable characteristics of the waste in the application for a permit may result in the Department requiring a higher standard of engineered containment or monitoring, or both. Persons wishing to materially modify a facility must submit all information necessary to define and describe the probable impacts of the modification or new process components on the area of review.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24286)

NAC 445A.394 Application for permit: Submission; contents. (NRS 445A.425, 445A.465)

1. To obtain a permit to construct, operate and close permanently a facility, the owner or operator of the proposed facility or the designated agent of the owner or operator must submit to the Department a written application signed by the owner or, if the owner does not operate the facility, the operator of the facility or his or her designated agent. The application must be accompanied by the appropriate fee established pursuant to NAC 445A.232.

2. An application for a permit must contain:

(a) The name, location and mailing address of the:

(1) Facility.

(2) Owner.

(3) Operator.

(4) Authorized agent.

(b) The legal structure of the applicant, including, but not limited to, whether the applicant is a sole proprietorship, partnership or corporation.

(c) The name of the owner of the land or mining claim or claims on which the facility will be located.

(d) Documentation that notice of the proposed development has been provided to the local board of county commissioners.

(e) The rate at which the facility is anticipated to be chemically processing ore in tons of ore per year.

(f) An assessment of the area of review as required by NAC 445A.395.

(g) A meteorological report as required by NAC 445A.396.

(h) An engineering design report as required by NAC 445A.397.

(i) A copy of the draft operating plans for the facility as required by NAC 445A.398.

(j) A report of the sample analysis as required by NAC 445A.396.

3. New applications or requests for major modifications to existing permits must be submitted to the Department at least 165 days before the date on which the applicant wishes to initiate construction.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24288)

NAC 445A.395 Contents of application: Assessment of area of review. (NRS 445A.425, 445A.465)

1. An assessment of the area of review must include:

(a) Hydrogeological and lithological information which defines the subsurface conditions of the site beneath and adjacent to all point sources to a minimum depth of 100 feet.

(b) A geological map covering the area within a 1-mile radius of the process components.

(c) A topographic map which identifies:

(1) All known surface waterways, streams, springs and seeps within a 1-mile radius of the facility;

(2) All existing habitable buildings within a 1-mile radius of the facility;

(3) The boundaries and area of the upgradient watershed and the degree to which the 100-year, 24-hour storm event will affect the process components; and

(4) All wells constructed for supplies of drinking water within 5 miles downgradient of the site identified in the records of the Division of Water Resources of the Department or known to the applicant.

2. The Department may require that a greater or lesser area of review be prescribed in an application for a permit based upon:

(a) The ability of the geologic formation at the site of the facility to inhibit contaminant migration;

(b) The size of the human population in the area;

(c) The depth from the surface to all groundwater;

(d) The distance to all surrounding bodies of surface water; and

(e) The quality, uses and potential uses of the ground and surface water within the area of review.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2429)

NAC 445A.396 Contents of application: Meteorological report; analysis of samples. (NRS 445A.425, 445A.465) An application for a permit must include:

1. A summary of the historical monthly averages of rainfall obtained from the nearest recording station to the site adjusted for conditions at the site;

2. The 24-hour storm events with an interval of recurrence of 10 years, 25 years, and 100 years;

3. The diurnal temperature variation from the nearest recording station to the site adjusted for conditions at the site; and

4. Results from testing samples from the facility's mine site which are representative of the overburden, waste rock and ore at the proposed mine site that have:

(a) Characterized the samples by a multi-element spectrographic assay or an equivalent analytical procedure; and

(b) Evaluated the samples for their potential to release pollutants.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24292)

NAC 445A.397 Contents of application: Engineering design report; specifications for fluid management system. (NRS 445A.425, 445A.465)

1. An engineering design report must be prepared and submitted to the Department by a professional engineer registered in Nevada. The report must include the following information, if applicable:

(a) Engineering plans for the process components used for beneficiation;

(b) The general specifications and calculations for the process components;

(c) Topographic maps showing the location of all potential sources at the facility including, but not limited to:

(1) The extraction sites;

(2) The process components used for beneficiation;

(3) The disposal sites for waste rock; and

(4) The disposal sites for spent ore;

(d) Drawings which indicate the layout of the structures and devices for controlling process fluids;

(e) Methods for the control of storm flow runoff;

(f) The existing geological and hydrogeological conditions beneath and adjacent to the site of the fluid management system and waste rock disposal sites and the degree to which these conditions provide natural containment, preferential flow pathways and structural stability;

(g) A description of the liner material and installation procedures for all leach pads, ponds and ditches, including a description of the subbase preparation;

(h) Details of leak detection and site-monitoring systems; and

(i) Process schematics of the facility.

2. Specifications for constructing the fluid management system and for the material to be used must be submitted to the Department with the application for a permit, and must include, but not be limited to, the methods to be utilized for inspecting, testing, and quality assurance and control.

3. The information required by subsections 1 and 2 must be of sufficient detail to allow the Department to make the following factual determinations:

(a) Which of the potential sources at the facility are to be considered process components for the purposes of NAC 445A.350 to 445A.447, inclusive;

(b) That the design of the process components is sufficient to protect the waters of the State from degradation; and

(c) That the monitoring system is adequate to determine if the process components are operating so as to protect the waters of the State from degradation.

Any material modification to a process component requires the approval of the Department before construction begins.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24294)

NAC 445A.398 Contents of application: Proposed operating plans. (NRS 445A.425, 445A.465) The proposed operating plans for a facility must include:

1. A description of the mineral processing circuit which includes a flow chart of the facility and the range of operating conditions for which the process components were designed.

2. A plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. The plan must provide a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded.

3. A plan for monitoring the facility which describes:

(a) The water quality in the area;

(b) The monitoring locations the applicant proposes to sample routinely in order to evaluate surface and groundwater at the site that may be affected by the operation of the facility;

(c) An analytical profile of each surface and groundwater that may be affected by the operation of the facility; and

(d) The locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples.

4. A plan for responding to emergencies which:

(a) Describes what actions must be initiated and by whom as a result of various possible failures in the fluid management system which would result in releases of pollutants; and

(b) Is designed to minimize the environmental impact resulting from the release of process fluids.

5. A temporary closure plan resulting from conditions described in subsection 1 of NAC 445A.444 which describes the activities which must be maintained during the time of closure.

6. A tentative plan for the permanent closure of the facility which describes the procedures, methods and schedule for stabilizing spent process materials. The plan must include:

(a) Procedures for characterizing spent process materials as they are generated; and

(b) The procedures to stabilize all process components with an emphasis on stabilizing spent process materials and the estimated cost for the procedures.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24296)

NAC 445A.399 Preparation of plan for seasonal closure of process components. (NRS 445A.425, 445A.465) If the facility is located in an area where the mean diurnal temperature does not exceed 0 degrees Centigrade for 30 days or more a plan for the seasonal closure of the process components must be prepared. The plan must describe:

1. The impact this change in the weather will have on the process components, including, but not limited to, a discussion of the possible closure of individual process components;

2. Those activities which must be undertaken to prepare those process components which may be potentially affected by the low temperatures;

3. The activities which will be maintained during this time of closure; and

4. The conditions that would allow operations to resume.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24298)

NAC 445A.400 Initial review of application and notification of applicant; failure to provide information; submission of incorrect information. (NRS 445A.425, 445A.465)

1. The Department shall, within 30 days after receiving an application for a permit, notify the applicant in writing:

(a) That the application is procedurally complete or specify any deficiencies; and

(b) Which nonfluid management system sources will not initially be considered as process components for the purposes of NAC 445A.350 to 445A.447, inclusive.

This review is solely to determine if all the information required by NAC 445A.394 to 445A.398, inclusive, has been submitted and is not a determination as to the adequacy of the information.

2. Failure to provide all information required for a determination of completeness within 1 year after the application date renders an application void and requires the submittal of a new application and fee. A new application and fee will not be required if the Department fails to act in a timely manner or if the applicant can demonstrate that circumstances beyond the applicant's control prevented him or her from developing the additional information.

3. If an applicant becomes aware that he or she failed to submit any relevant information or submitted incorrect information in an application, the applicant must promptly submit such information to the Department.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.243)

NAC 445A.401 Action by Department upon application. (NRS 445A.425, 445A.465)

1. After determining that an application is procedurally complete, the Department shall, within 90 days, determine whether the application is technically complete, and prepare and issue:

(a) A draft permit or a notice of intent to deny the application;
(b) A fact sheet which:
(1) Identifies the location of the facility;
(2) Describes the proposed sources;
(3) Provides a description of the facility and monitoring systems;
(4) Identifies the probable receiving water; and
(5) Describes the procedures for public comment; and
(c) A public notice for each draft permit or intent to deny an application for a permit to construct, operate and close a mining and beneficiation facility.
2. The 90-day time for action by the Department may be extended by the amount of time necessary for the applicant to submit additional information necessary to make the application technically complete.
(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24302)

NAC 445A.402 Notice of intent to issue permit or deny application. (NRS 445A.425, 445A.465, 445A.590)
1. The Department shall, at least 30 days before the issuance of a permit or denial of an application:
(a) Circulate a public notice in a manner intended to inform interested and potentially interested persons.
(b) Cause to be published in a newspaper of general circulation within the geographic area of a proposed facility, a notice of the intent to issue the permit or deny the application.
(c) Mail to the applicant and the landowner, if other than the applicant, members of the board of county commissioners of the county in which the facility is to be located, the Division of Minerals, the Division of Water Resources of the Department, and any other person or group who so requests, written notice of the intent to issue a permit or deny the application.
2. Notice given pursuant to subsection 1 must include:
(a) The name, address and telephone number of the Department;
(b) The name and address of the applicant;
(c) The location of the proposed facility;
(d) The tentative decision of the Department to issue a permit or deny the application;
(e) A description of the procedure for:
(1) Making a final decision, which must include 30 days for interested persons to submit to the Department written comments on the tentative decision to issue a permit or deny the application; and
(2) Requesting a public hearing, if one has not been scheduled; and
(f) The specific location where interested persons may obtain further information or inspect and copy the draft permit, statement and fact sheet, and other relevant forms or documents.
(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24304)

NAC 445A.403 Request for hearing on application; submission of comments on draft permit. (NRS 445A.425, 445A.465, 445A.595) The applicant or any interested person may:
1. Request a public hearing on any application for a permit during the 30 days allowed for public comment if a hearing has not been scheduled. The request must be in writing and state the nature of the issues to be raised at the hearing.
2. Submit written comments on the draft permit to the Department within 30 days after notice is given pursuant to NAC 445A.402.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24306)

NAC 445A.404 Scheduling of public hearing on application. (NRS 445A.425, 445A.465, 445A.595) The Department:

1. Shall schedule a public hearing on an appl ication for a permit if it determines that there is a significant degree of public interest in the matter; or

2. May schedule a public hearing on its own initiative.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24308)

NAC 445A.405 Notice of hearing: Publication; contents. (NRS 445A.425, 445A.465, 445A.595) The Department shall cause to be published a notice for a hearing at least 30 days before the hearing in t he manner prescribed by NAC 445A.402. In addition to the information required by NAC 445A.402, the notice must include:

1. The date on which the previous public noti ce was given concerning the permit pursuant to NAC 445A.402;

2. The date, time and place of the hearing; and

3. A brief description of the nature and purpose of the hearing and the applicable rules and procedures.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.2431)

NAC 445A.406 Submission of testimony at hearing. (NRS 445A.425, 445A.465, 445A.595)

1. Any person may submit to the Department at a public hearing held by the Department on the application for a permit, an oral or written statem ent or other information which relates to the draft of the permit.

2. The Department may:

(a) Set reasonable limits upon the time allowed for oral statements; and

(b) Require persons submitting oral statements to submit statements in writing.

3. The 30-day period for comment is automatically extended to the close of the hearing on that matter.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24312)

NAC 445A.407 Issuance of statement responding to comments on dra ft permit. (NRS 445A.425, 445A.465) If a final permit is issued, the Department shall issue a statement responding to the comments received on the matter. A copy of the statement mus t be sent to the applicant and persons submitting comments, and will be made available for inspection by the public. This statement must:

1. Specify which provisions, if any, in the draft of the permit that have been changed in the final permit, and the reasons for the change;

2. Briefly describe and respond to all signif icant comments submitted during the time established for public comment on the draft of the permit; and

3. Provide that any person aggrieved by the Department's decision may appeal the decision pursuant to NRS 445A.605.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24314)

NAC 445A.408 Action by Director of Department after period for public comment. (NRS 445A.425, 445A.465) Within 15 days after the end of the time for public comment regarding the issuance or renewal of a permit, the Director of the Department shall issue the final permit or provide written notice to the applicant why the final permit will not be issued at that time. This notice must set forth the time allowed for an aggrieved party to appeal the Department's decision.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24316)

NAC 445A.409 Issuance and maintenance of permit; maximum term and renewal of permit. (NRS 445A.425, 445A.465, 445A.495)

1. If an application is approved, a single permit must be issued for the construction, operation and closure of the facility. A valid permit must be maintained until permanent closure is complete.

2. A permit may be issued for a maximum term of 5 years, at which time the holder of the permit may apply for renewal.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24318)

NAC 445A.410 Permit for small-scale facility: Contents of application; limitation on holding; applicability of minimum design criteria. (NRS 445A.425, 445A.465)

1. An application for a permit to construct, operate and close permanently a small-scale facility must contain:

(a) The information required by paragraphs (a) to (e), inclusive, of subsection 2 of NAC 445A.394;

(b) Site information consisting of:

(1) The distance from the surface to groundwater;

(2) A topographic map which identifies all surface waters, waterways and springs within 1/2 mile of the site; and

(3) A description of the general character of the soil and geologic formations which lie beneath and adjacent to the proposed processing site;

(c) A description of and the criteria for the design of the containment system for the individual process components, including plans, schematics and cross-section diagrams of the process components which identify those components which provide for the containment of process fluids; and

(d) A copy of the draft operating plan for the facility which describes:

(1) The chemicals to be used in the beneficiation process;

(2) The methods which are proposed for controlling process fluids so that no discharges occur;

(3) The systems which are proposed for detecting leaks and monitoring the facility;

(4) The actions that will be taken if process fluids escape the fluid management system;

(5) The methods which are proposed to stabilize processed materials before they are disposed of or during the permanent closure of the facility; and

(6) The procedures which are to be instituted to ensure that the facility poses no threat to the environment when there is no activity at the facility or when there is a temporary closure.

2. A person may not concurrently hold more than one permit for a small-scale facility if the facilities are within 1 mile of each other.

3. The minimum design criteria in NAC 445A.433 to 445A.438, inclusive, apply to small-scale facilities.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2432)

NAC 445A.411 Pilot facility or testing facility: Conditions for issuance of permit. (NRS 445A.425, 445A.465) The Department may issue a permit to construct, operate and close permanently a pilot facility or testing facility if:

1. The facility is to evaluate less than 10,000 tons of ore, except that a greater amount may be permitted if the applicant demonstrates that the greater amount is necessary for a specific purpose in the testing program; and

2. The applicant has clearly shown that the facility will not degrade the waters of the State.

A permit to operate a pilot facility or testing facility may not exceed 1 year for a single test or 2 years for a facility that has several tests to conduct.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24322)

NAC 445A.412 Pilot facility or testing facility: Contents of application for permit. (NRS 445A.425, 445A.465) An application for a permit to construct, operate and close permanently a pilot facility or testing facility must include:

1. The information required in paragraphs (a) to (d), inclusive, of subsection 2 of NAC 445A.394;
2. The quantity of the material to be evaluated;
3. The time required to complete all testing;
4. The type and quantity of chemicals to be utilized in the testing process;
5. A copy of the plans for the system and individual process components;
6. A description of the monitoring systems which are to be used to satisfy the requirements of NAC 445A.424;
7. A description of the procedures to be used to stabilize and dispose of the spent ore;
8. A topographic map of the area for the test site;
9. A description of hydrogeologic conditions at the site; and
10. A draft plan for the permanent closure of the facility, including a plan to stabilize areas disturbed by the operations of the facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24324)

NAC 445A.413 Pilot facility or testing facility: Construction of application indicating need to conduct testing beyond 2 years. (NRS 445A.425, 445A.465) An application for a permit to operate a pilot facility or testing facility which indicates a need to conduct testing beyond 2 years will be construed to be a request to operate a facility subject to the filing requirements of NAC 445A.394 to 445A.398, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24326)

NAC 445A.414 Permit for facility using physical separation methods. (NRS 445A.425, 445A.465)

1. An applicant for a permit to construct, operate and close permanently a facility which utilizes physical separation methods of concentrating ore such as placer mining and flotation methods and which uses only coagulants, flocculants and reagents submitted to and approved by the Department, must submit to the Department:

(a) The information required by paragraphs (a) to (e), inclusive, of subsection 2 of NAC 445A.394;

(b) An abbreviated area of review which covers only the site and the adjacent area, including an identification of all surface water within 1/2 mile of the site and the depth and quality of all groundwater beneath the site;

(c) A draft operating plan which describes the circuit for concentrating the ores and identifies all process components;

(d) A multi-element spectrographic assay or other approved method of analysis which characterizes the ore body;

(e) The results of an analysis of the process make up water and process water for the inorganic constituents listed in NAC 445A.453 and 445A.455 to determine which and to what extent the process water burden of these elements is increased; and

(f) A certification that the applicant will not utilize any chemicals in the process except those submitted to and approved by the Department.

2. The use of a chemical not approved by the Department removes the facility from this category of operation and requires the holder of the permit to meet the requirements established in NAC 445A.394 to 445A.398, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24328)

NAC 445A.415 Granting of permit which allows lower level of engineered containment than required by minimum design criteria. (NRS 445A.425, 445A.465) After receiving a petition from an applicant, the Department may grant a permit which allows a lower level of engineered containment than is required in NAC 445A.434 to 445A.438, inclusive, if the applicant clearly demonstrates:

1. That the groundwater at the facility is exempted from the standards established in paragraphs (b) and (c) of subsection 1 of NAC 445A.424;

2. The following:

(a) The depth from the surface to groundwater is greater than 200 feet and the upper portion of the existing geologic formation has a coefficient of permeability which is not more than that exhibited by 50 feet of material with a coefficient of permeability of $1x10^{-6}$ cm/sec;

(b) No open fractured or faulted geologic conditions exist from the surface to the groundwater; and

(c) All exploratory and condemnation borings beneath the site have been adequately sealed; or

3. That the conditions which exist at the site may allow a lower level of designed containment and still ensure that the waters of the State will not be degraded by providing, in addition to the information required by NAC 445A.394 to 445A.398, inclusive:

(a) An assessment of the combined effect of all relevant characteristics, including:

(1) The depth to all groundwater and the distance to all surface water;

(2) The hydrogeology and stratigraphy of the site; and

(3) The quality, characteristics, and existing and potential beneficial uses of any ground and surface water which may be potentially affected by the proposed facility.

(b) An engineering assessment of the combined effect of such relevant factors as:

(1) The proposed design of each process component, including the type and thickness of the liner or base;

(2) Other construction specifications;

(3) The type of materials to be used and the methods for placement of those materials;

(4) All structures, devices and techniques for controlling drainage and minimizing solution loss;

(5) The method to be used for controlling the internal hydraulic head;

(6) The system to detect and monitor leaks; and

(7) The types of quality assurance and quality control procedures to be used.

(c) An assessment of the potential for the facility to degrade the waters of the State, including an analysis of the potential for process fluids from each component to reach waters of the State, and the potential impact of such fluids on these waters.

□ The Department may require the applicant to bear the cost of a third-party review of the application to determine whether it meets the requirements of this subsection. The Department shall develop and maintain a list of qualified reviewers from which the applicant can select. The Department must concur with the selection and all direction to the third party must be given by the Department. The time allotted to the Department to determine the completeness of an application pursuant to NAC 445A.401 may be extended by the amount of time necessary to complete the third-party review.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2433)

NAC 445A.4155 Conditions pursuant to which modification to design of facility with existing permit does not require new public notice; extension of term of existing permit disallowed. (NRS 445A.425, 445A.465)

1. A modification to the design of a facility for which a permit has been granted by the Department does not require a new public notice if:

(a) The modification requires review by the Department pursuant to NAC 445A.350 to 445A.447, inclusive; and

(b) The Commission determines that the modification is not a modification of such significance as to constitute a "minor modification" or a "major modification," as those terms are described in NAC 445A.416 and 445A.417, respectively.

2. Such a modification may not extend the term of the permit.

(Added to NAC by Environmental Comm'n, eff. 10-29-97)

NAC 445A.416 Minor modification of existing permit; modification of operating plans. (NRS 445A.425, 445A.465, 445A.600)

1. A minor modification to an existing permit does not require a new public notice.

2. A minor modification to an existing permit may not extend the term of the permit.

3. A modification to the operating plans does not require a modification to the permit if the change will not result in an increased potential for the facility to degrade waters of the State.

4. For the purposes of this section, "minor modifications" include, but are not limited to:

(a) The phased expansion of the milling and tailings impoundment or the leach pads using the same or equivalent technologies that presently exist at a site which was adequately characterized in the original application but for which detailed design plans were not submitted in the original application.

(b) A significant modification to a monitoring system which does not result in a lessening of the effectiveness of that system.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24332)

NAC 445A.417 Major modification of existing permit. (NRS 445A.425, 445A.465, 445A.600)

1. A major modification to an existing permit requires a public notice.

2. A major modification to an existing permit may extend the term of the permit for not more than 5 years.

3. For the purposes of this section, "major modifications" include:

(a) The addition of a new beneficiation process which includes, but is not limited to, heap leaching and process components for milling, which was not identified in the original application.

(b) A significant change in the location of a proposed process component or site condition which was not adequately described in the original application.

(c) A change in the proposed beneficiation process that significantly alters the characteristics of the waste stream which significantly increases the potential to degrade the waters of the State.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24334)

NAC 445A.418 Fee for modification of permit. (NRS 445A.425, 445A.430, 445A.465)

1. The fee for a minor modification to a permit is one-half the amount of the renewal fee for a permit, up to a maximum fee of $5,000.

2. The fee for a major modification to a permit is equal to the amount of the renewal fee for a permit.

3. The fee for the type of a modification described in NAC 445A.4155 is $500.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A 10-29-97)

NAC 445A.419 Transfer of permit to new owner or operator. (NRS 445A.425, 445A.465)

1. A permit may be transferred to a new owner or operator.

2. Before the ownership or operation of a facility may be transferred during the term of a permit, the holder of the permit must inform the new owner or operator in writing of the requirements of the current permit and the requirements of NAC 445A.350 to 445A.447, inclusive.

3. A copy of that written notice must be sent to the Department.

4. The new owner or operator must state in writing to the Department that he or she will comply with the existing operating plans or provide revised plans to the Department for review and approval.

5. Until notice is given by the Department that the permit has been transferred, the current operator or owner named on the permit is responsible for complying with NAC 445A.350 to 445A.447, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24338)

NAC 445A.420 Renewal of permit; operation of facility pending issuance of new permit. (NRS 445A.425, 445A.465, 445A.495)

1. A permit may be renewed by the Department if the holder of the permit submits an application to renew the permit. The application must:

(a) Be filed at least 120 days before the expiration of the existing permit;

(b) Include the renewal fee required by NAC 445A.232; and

(c) Include any new information to update information previously submitted to the Department.

2. A permit for a facility which is inactive because of an unplanned closure may be renewed once if the holder of the permit demonstrates that the conditions under which the permit was issued will continue and the design life of the process components will not be exceeded.

3. If the Department has not issued a new permit as of the expiration of the existing permit, the holder of the permit may continue to operate the facility pursuant to the terms and conditions of the existing permit until a new permit is issued by the Department.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2434)

Operation and Design of Facilities

NAC 445A.424 Limitations on degradation of water; exemptions. (NRS 445A.425, 445A.465)

1. A facility, regardless of size or type, may not degrade the waters of the State to the extent that:

(a) The quality of surface water is lowered below that allowed by NRS 445A.565.

(b) For groundwater:

(1) The quality is lowered below a state or federal regulation prescribing standards for drinking water; or

(2) The concentration of WAD cyanide exceeds 0.2 mg/l.

The Department may establish a numerical limit for any constituent not regulated by subparagraphs (1) and (2) which may reasonably be expected to be discharged by the facility in sufficient volume and concentration to cause an adverse impact on human health.

(c) The quality of those waters of the State which already exceed the criteria established by subsection 2 is lowered to a level that the Department finds would render those waters unsuitable for the existing or potential municipal, industrial, domestic or agricultural use.

2. The Department may exempt a body of groundwater or portion thereof from the standards established in subsection 1 if the request for an exemption to the groundwater standards and the supporting information is submitted as part of the application for the permit. The following criteria will be considered by the Department in determining whether to exempt a potentially impacted body of groundwater from the standards in subsection 1:

(a) The impacted groundwater does not currently serve as a source of drinking water and because of the following reasons the groundwater will not serve as a source of drinking water:

(1) The groundwater produces a mineral, hydrocarbon or geothermal fluid which the applicant can demonstrate to the satisfaction of the Department exists at a concentration that is expected to be capable of commercial production and that releases by the facility will not affect this production;

(2) The groundwater is situated at a depth or location which makes recovery of water for drinking economically or technologically impractical; or

(3) It would be economically or technologically impractical to render the water fit for human consumption; or

(b) The total dissolved solids in the groundwater is more than 10,000 milligrams per liter and the groundwater is not reasonably expected to become a supply of drinking water.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24342)

NAC 445A.425 Process components in existence on September 1, 1989: Standards; additional monitoring. (NRS 445A.425, 445A.465)

1. A process component in existence on September 1, 1989, is not required to meet more stringent engineering containment standards during the design life of that component if the applicant can demonstrate that:

(a) The process component meets and will continue to meet its design criteria; and

(b) There have been no significant changes in the characteristics of the material to be contained by the process component which would increase the potential to degrade the waters of the State.

2. Upon issuing a permit for a process component in existence on September 1, 1989, the Department may require additional monitoring of the site to verify that the conditions of this section are being met. A process component found to have had releases of process fluid as a result of this monitoring must comply with the requirements of NAC 445A.441.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24344)

NAC 445A.426 Notice of intent to commence active operation of process component. (NRS 445A.425, 445A.465) At least 30 days before the introduction of process solutions into a new process component or an existing process component which has been materially modified, the holder of the permit must notify the Department of the intent to commence active operation of that process component.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24346)

NAC 445A.427 Duties of holder of permit upon construction or modification of process component. (NRS 445A.425, 445A.465) Within 30 days after completing construction on a new process component or materially modifying an existing process component, the holder of the permit shall submit to the Department:

1. As-built drawings of the process component;
2. A summary of the quality control procedures which were carried out during construction; and
3. The final operating plans required by NAC 445A.398 which have been revised to reflect modifications made during construction.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24348)

NAC 445A.428 Level of containment required for placer mining or flotation facilities. (NRS 445A.425, 445A.465) For placer mining or flotation facilities, the level of containment required by the Department for process fluids will depend upon the characteristics of the ore and process water.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.2435)

NAC 445A.429 Procedures required to prevent release of contaminants; requirements concerning impoundments. (NRS 445A.425, 445A.465)

1. The holder of the permit must institute appropriate procedures to ensure that all mined areas do not release contaminants that have the potential to degrade the waters of the State.
2. Open pit mines must, to the extent practicable, be free-draining or left in a manner which minimizes the impoundment of surface drainage and the potential for contaminants to be transported and degrade the waters of the State.
3. Bodies of water which are a result of mine pits penetrating the water table must not create an impoundment which:
   (a) Has the potential to degrade the groundwaters of the State; or
   (b) Has the potential to affect adversely the health of human, terrestrial or avian life.
4. The holder of a permit may apply to the Commission to establish a beneficial use with a level of protection less than that required by paragraph (b) of subsection 3 for water impounded in a specific mine pit.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24352)

NAC 445A.430 Stabilization of spent ore. (NRS 445A.425, 445A.465)

1. Spent ore which has been left on pads or which will be removed from a pad must first demonstrate stability of the discharge effluent from the pads or from the spent ore such that:
   (a) WAD cyanide levels in the effluent are less than 0.2 mg/l;
   (b) The pH level of the effluent is between 6.0 and 9.0; and
   (c) Contaminants in any effluent from the processed ore which would result from meteoric waters would not degrade waters of the State.
2. If the requirements established in subsection 1 cannot be achieved, the Department will grant a variance to those conditions if the holder of the permit can demonstrate that:

(a) The remaining solid material, when represe ntatively sampled, does not contain levels of contaminants that are likely to become mobile and degrade the waters of the State under the conditions that will exist at the site; or

(b) The spent ore is stabilized in such a fash ion as to inhibit meteoric waters from migrating th rough the material and transporting contaminants that have the potential to degrade the waters of the State.

3. The Department may approve an alternate me thod for stabilizing ore that has been leached if t he holder of the permit can clearly demonstrate that the condition in which the materials will be left will not create a potential for the waters of the State to be degraded.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A by R141-06, 10-31-2007)

NAC 445A.431 Stabilization of tailings. (NRS 445A.425, 445A.465) Upon termination of the active use of a tailings impoundment, representative samples o f the material deposited in the impoundment must be collected and characterized. The tailings must be stabilized during the final closure of a facility so as to inhibit the migration of any contaminant that has the potential to degrade the waters of the State.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24356)

NAC 445A.432 Minimum design criteria: Generally. (NRS 445A.425, 445A.465) NAC 445A.433 to 445A.438, inclusive, define the minimum design criteria required of each process component and the site and operating conditions which are considered to exist when these criteria are applied. These provisions establish minimum contaminant control technologies and define the site and operating conditions which must be evaluated. Based on site characterization, best engineering judgment will be applied to determine the degree to which designs must provide more or less protection through engineered containment.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24358)

NAC 445A.433 Minimum design criteria: Universal requirements; ar eas where groundwater is near surface; proximity of new process components to dwe llings; liability for degradation of water. (NRS 445A.425, 445A.465)

1. The following minimum design requirements apply to all process components:

(a) In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge.

(b) All sources must be designed to minimize releases of contaminants into groundwaters or subsurface migration pathways so that any release from the facility will not degrade waters of the State.

(c) All process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval.

(d) The primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. The Department may requir e additional containment based on the following factors:

(1) Proximity to surface water bodies;

(2) Depth to groundwater; and

(3) Proximity to population.

Contingency plans for managing process contaminat ed flows in excess of the design quantity must be described in the appropriate operating plans.

(e) The fluid management system must be design ed to be functional for 5 years after the projected operating life of the process component and permanent closure period.

(f) The design of the process components must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity.

2. Additional containment of process fluids may be required in areas where groundwater is considered to be near the surface. Groundwater is considered to be near the surface if:

(a) The depth from the surface to groundwater is less than 100 feet and the top 100 feet of the existing formation has a coefficient of permeability greater than that exhibited by 100 feet of $1x10^{-5}$ cm/sec material;

(b) Open fractured or faulted geologic conditions exist in the bedrock from the surface to the groundwater; or

(c) There is an inability to document that all exploratory and condemnation borings beneath the site have been adequately sealed.

3. No new process component containing process fluids may be located within 1,000 feet of any dwelling which is occupied at least part of the year and which is not a part of the facility. This restriction does not apply to modifications at a facility which predate such a dwelling.

4. The application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the State caused by the facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2436)

NAC 445A.434 Minimum design criteria: Leach pads and other nonimpounding surfaces designed to contain and promote horizontal flow of process fluids. (NRS 445A.425, 445A.465) Leach pads and other nonimpounding surfaces which are designed to contain, not impound, process fluids and to promote the horizontal flow of process fluids must meet the following requirements:

1. Process fluids must exert only minimal hydraulic head on the liner.

2. Containment of process fluids must consist of an engineered liner system which provides containment equal to or greater than that provided by a synthetic liner placed on top of a prepared subbase of 12 inches of native, imported or amended soil, which has a maximum recompacted in place coefficient of permeability:

(a) Of $1x10^{-6}$ cm/sec; or

(b) Of $1x10^{-5}$ cm/sec when combined with a system for the detection of leaks which must be located at least beneath those portions of the liner which have the greater potential for leakage. The potential for leakage must be determined by:

(1) The extent of the hydraulic head exerted on a portion of the liner; and

(2) The period of time a portion of the liner is exposed to process fluids.

3. If leach pads or other nonimpounding surfaces are located above areas where groundwater is considered near the surface, the Department may require a liner system with a higher level of engineered containment.

4. When a material or system which provides hydraulic relief is installed beneath a single liner, including, but not limited to, sand, french drains and geotextiles, regardless of the intent of its design, it must function as a leak detection system and include a means for recovering process fluids.

5. Depending on the methods and materials used for their construction, the Department may require all open channels which routinely transport process fluids to be traced by a leak detection system.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24362)

NAC 445A.435 Minimum design criteria: Ponds. (NRS 445A.425, 445A.465)

1. All ponds which are intended to contain process fluids must have a primary synthetic liner and a secondary liner. Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point which:

(a) Is accessible; and

(b) Has a system for recovering those fluids.

2. When the material between the liners is unable to collect, transport and remove all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down.

3. Ponds which are primarily designed to contain excess quantities of process fluids that result from storm events for limited periods may be constructed with a single liner if approved by the Department.

4. Ponds containing nonprocess fluids may be required to be lined depending on their potential to degrade waters of the State.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24364)

NAC 445A.436 Minimum design criteria: Vats, tanks and other containers which confine process fluids. (NRS 445A.425, 445A.465) Vats, tanks and other containers which confine process fluids and can be inspected for leaks visually do not require double liners if an area for secondary containment equal to 110 percent of the largest container is provided. Vats, tanks or other containers that are partially buried and cannot be visually inspected must have a system to detect leaks.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24366)

NAC 445A.437 Minimum design criteria: Tailings impoundments. (NRS 445A.425, 445A.465)

1. A tailings impoundment must utilize a system of containment equivalent to:

(a) Twelve inches of recompacted native, imported, or amended soils which have an in place recompacted coefficient of permeability of no more than $1x10^{-6}$ cm/sec; or

(b) Competent bedrock or other geologic formations underlying the site which has been demonstrated to provide a degree of containment equivalent to paragraph (a).

2. An alternate level of containment may be required by the Department for all of the tailings impoundment or for a portion thereof after considering the following factors:

(a) The anticipated characteristics of the material to be deposited;

(b) The characteristics of the soil and geology of the site;

(c) The degree to which the hydraulic head on the impoundment liner is minimized;

(d) The extent and methods used for recycling or detoxifying fluids;

(e) Pond area and volume;

(f) The depth from the surface to all groundwater; and

(g) The methods employed in depositing the impounded material.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24368)

NAC 445A.438 Minimum design criteria: Liners. (NRS 445A.425, 445A.465)

1. When placed on native materials, soil liners must have a minimum thickness of 12 inches and be compacted in lifts which are no more than 6 inches thick. Except when used in tailing impoundments, a soil liner must have a permeability of not more than that exhibited by 12 inches of $1x10^{-7}$ cm/sec material.

2. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of $1x10^{-11}$ cm/sec.

3. The Department shall review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner:

(a) The type of foundation, slope and stability;

(b) The over liner protection and provisions for hydraulic relief;

(c) The load and means of applying load;

(d) The compatibility of a liner with process solutions;

(e) The complexity of the leak detection and recovery systems;

(f) The depth from the surface to all groundwater; and

(g) The liner's ability to remain functionally competent until permanent closure has been completed.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2437)

NAC 445A.439 Program required to control quality of construction of liner systems. (NRS 445A.425, 445A.465) A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. A summary of the quality control data must be submitted to the Department with the as-built drawings.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24372)

NAC 445A.440 Monitoring: Site of facility. (NRS 445A.425, 445A.465)

1. The program to monitor the site of a facility must be designed to monitor the quality of all ground and surface water which may be affected by the facility. The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department.

2. Final monitoring requirements must be established by the Department.

3. Baseline data must be collected before operation of the facility.

4. In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the Department.

5. The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24374)

NAC 445A.441 Monitoring: Procedure upon variation in parameter or element being monitored. (NRS 445A.425, 445A.465) If the Department determines that there has been a variation in a parameter or element being monitored by the site-monitoring system as required in NAC 445A.440 which is caused by the facility and has the potential to degrade the waters of the State:

1. The holder of the permit shall conduct and submit an evaluation to the Department which:

(a) Identifies the source and escape pathways of the elements of concern;

(b) Determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and

(c) Identifies methods which can be carried out to remediate the contamination during the continued operation of the facility or at permanent closure.

2. The Department shall, based on the information provided pursuant to subsection 1:

(a) Require the immediate shut down of the process component and the immediate initiation of cleanup activities;

(b) Allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities;

(c) Allow continued operation of the process component which is the source of the elements of concern while requiring the facility to continue to control the migration of the contaminant while cleanup activities are postponed; or

(d) Determine that no remedial action is warranted at the present time.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24376)

NAC 445A.442 Monitoring: Process components. (NRS 445A.425, 445A.465)

1. The Department shall determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment.

2. The program to monitor the process components must include:

(a) A schedule of activities;

(b) A roster of current job titles for persons responsible for and involved in the monitoring program; and

(c) The form and frequency of reports to be submitted to the Department.

The Department may randomly collect information or samples for reference. The cost of analyzing samples may be placed upon the holder of the permit.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24378)

NAC 445A.443 Monitoring: Beneficiation process. (NRS 445A.425, 445A.465) Monitoring of the beneficiation process must include the routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.2438)

NAC 445A.444 Examples of planned and unplanned temporary closures. (NRS 445A.425, 445A.465)

1. The following are examples of planned temporary closures which have specific conditions defining their beginning and end:

(a) Seasonal closures because of normal weather cycles.

(b) Interruptions in the active beneficiation processes to provide planned periods of quiescence for metallurgical or operating reasons.

(c) Any other planned process condition which will interrupt the active beneficiation process.

2. The following are examples of unplanned temporary closures:

(a) A closure because of unforeseen weather events.

(b) A failure in a major system component or a process failure which causes the fluid management system or a portion thereof to shut down.

(c) The discontinuation of a facility's operations because of litigation.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24382)

NAC 445A.445 Procedure upon unplanned temporary closure of process component. (NRS 445A.425, 445A.465)

1. In the event of an unplanned temporary closure of one or more process components, the holder of the permit shall:

(a) Within 30 days after an unplanned temporary closure begins, inform the Department of the closure and describe the procedures and controls which have been carried out to maintain the process components during this period.

(b) Within 90 days after the Department has been notified of the unplanned temporary closure:

(1) Begin to evaluate the procedures which will be required to carry out a permanent closure of the process components affected and petition the Department to approve one or more procedures needed for the permanent closure of the process components affected; or

(2) For just cause, request that the Department grant an extension and delay permanent closure. Except as otherwise provided in subsection 2 of NAC 445A.420, the extension may not be longer than the remaining term of the existing permit or for 3 years, whichever is greater.

2. The Department shall approve or disapprove the proposed procedures for permanent closure within 30 days after they are submitted to the Department.

3. Unless the Department has granted an extension pursuant to subparagraph (2) of paragraph (b) of subsection 1 within 270 days after the Department has been notified of the unplanned temporary closure, the holder of the permit shall initiate the approved procedures for permanent closure.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24384)

NAC 445A.446 Permanent closure of facility. (NRS 445A.425, 445A.465)

1. The permanent closure of a facility must be initiated:

(a) Following the request of the holder of the permit;

(b) For a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or

(c) When the end of the design life of that process component is reached.

2. Permanent closure is complete when the requirements contained in NAC 445A.429, 445A.430 and 445A.431 have been achieved.

3. The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years.

(Added to NAC by Environmental Comm'n, eff. 9- 1-89) — (Substituted in revision for NAC 445.24386)

NAC 445A.447 Plans for permanent closure; sources not classified as process components. (NRS 445A.425, 445A.465)

1. Plans for permanent closure are required for all sources at a facility.

2. A final plan for permanent closure of any source which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component.

3. Sources which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the

waters of the State under the final proposed site c onditions and must be closed in accordance with the State Handbook of Best Management Practices prepared pursuant to NAC 445A.336.

(Added to NAC by Environmental Comm'n, eff. 9-1-89) — (Substituted in revision for NAC 445.24388)

STATE OF NEVADA
Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Mining Regulation and Reclamation

Water Pollution Control Permit

Permittee: **Boiler Plate Company** ***(Secretary of State Listed?)***
Secret Mining Project
P.O. Box 0000
Mining Town, NV 89000

Permit Number: **NEV#########**
Review Type/Year/Revision: **New Permit/Renewal YYYY, Revision xx**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and (for closure permits deleteconstruct, operate, and) close the **Secret Mining Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to process up to **##,###,### tons** of ore per year (for closure permits replace the previous sentence with The Permittee is not authorized to mine or process ore).

The facility is located in Paradise County, within Sections 1, 2, and 3, Township 1 North (T1N), Range 2 East (R2E); and Sections 1-36, T2N, R2E, Mount Diablo Baseline and Meridian, approximately zz miles north/south/east/west of the town of Smalltown, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of Day Month Year, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated (for closure permits replace operated with closed) as specified in the application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **Day Month Year**, and shall remain in effect until **Day-1 Month Year**+5, unless modified, suspended, or revoked.

Signed this _____ day of **Month Year**.

_____
Joseph Sawyer, P.E.
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Facility Conditions and Limitations

A. In accordance with operating plans (for closure per mits add:, closure plans,) and facility design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the facility in accordance with those plans;

2. Contain within the fluid management system all proc ess fluids including all meteoric waters which enter the system as a result of the 25 -year, 24-hour storm event (for closure permits, unless we determine a different st orm event is appropriate, consider replacing the 25-year, 24-hour storm event with the 500-year, 24-hour storm event); and

3. Not release or discharge any process or non-process contaminants from the fluid management system (for closure or non-closure permi ts that include a discharge add:, except as approved by the Division in accordance wi th this Permit and any associated plans, reports, studies, and designs).

B. Schedule of Compliance: None Required (Delete "Non e Required" if you choose to include any SOC items below) (Between renewals, whe n the Permit is modified, update any completed SOC items with " Completed dd Month yyyy ", but no other status information is allowed. During renewals, all completed SOC items are deleted and the SOC item numbering is revised accordingly.)

1. Put your SOC item(s) here.

The schedule of compliance items above are not cons idered completed until approved in writing by the Division.

C. The fluid management system covered by this Permit consists of the following process components:

1. Lined heap leach pad and solution collection area;

2. Solution collection pipe and lined solution collection ditch;

3. Leak detection system for the pad, solution collection area, and collection ditch;

4. Pregnant and barren solution ponds and corresponding leak detection systems;

5. Transfer pipes, valves, and pumps used in conveyance, control, or detection of process fluids between process components; and

6. Process recovery building, including, but not limit ed to, all tanks, basins, sumps, pumps, and piping necessary to interconnect the components within the building.

D. Monitoring Requirements:

Identification	**Parameter**	**Frequency**
1. Water Supply Well XX	Profile I[(2)]	Initially then annually

Identification	**Parameter**	**Frequency**
2. Leach Pad, Channel and Pipeline Leak Detection Heap Leach Pad (HLP) Solution Channel (SC)	Average daily accumulation (gpd)	Weekly[1] (once commissioned)
3. Pond Leak Detection (sump capacity, if known) Pregnant Solution Pond (PSP) (x,xxx gal) Barren Solution Pond (BSP) (x,xxx gal)	Average daily accumulation (gpd)	Weekly[1] (once commissioned)
4. Piezometer Measurements Drainage Blanket (DB) Tailings Solids (TS)	Hydraulic head (feet)	Weekly
5. Process Solution Pregnant Pond (PP) Barren Pond (BP) Underdrain Pond (UP) Tailings Slurry (TSL)	Profile I[2]	Quarterly (once commissioned)
6. Mined Materials Waste Rock (WR) Ore Stockpile (OS) Alluvial Overburden (AO); Leach Pad Ore (LO) (Note: for physical separation facilities, no ore or waste rock analyses may be warranted if we can require Profile I analyses of the process wash water instead)	MWMP[4] -Profile I[2] and ANP/AGP[3][5]; ANP/AGP[3][5]	Quarterly; Quarterly
7. Site Monitoring Wells Alluvial Wells Bedrock Wells Upgradient Wells Downgradient Wells	Profile I[2], water and collar elevation (feet AMSL)	Quarterly (once Commissioned)

Identification	**Parameter**	**Frequency**
8. Petroleum Contaminated Soil (PCS) Screening Analysis Each temporary holding pad and treatment cell, by PCS source type;	VOCs[7], SVOCs[8], TPH[9];	Quarterly, prior to removal[10];
Each approved on-site disposal location, by PCS source type	VOCs[7], SVOCs[8], TPH[9]	Quarterly after provisional placement[10]
9. PCS Hazardous Waste Determinations Each PCS source	Hazardous waste determination[11]	When required[11]
10. PCS Management Each temporary Holding pad, treatment cell, and disposal location by PCS source type	PCS volume added, volume removed and destination, total volume present (cubic yards)	Quarterly
11. Pit Lake Monitoring Each Pit Lake that forms	Profile III[12], photograph, lake surface elevation (feet AMSL), area (acres), maximum lake depth (feet);	Quarterly, when present;
	Water temperature (°F), field pH (SU), and specific conductance (µS/cm) at lake surface, and for any lake ≥ 25 feet in depth, the same measurements at intermediate and bottom depths, plus the measurement depth (feet);	Monthly, when present;
(for closure permits add a separate item as follows with associated footnote – list every pit that could have a pit lake) A Pit, B Pit, C Pit	Presence of Water[14]	Semi-Annually (Q2 and Q4)

Identification	Parameter	Frequency
12. Waste Rock Storage Facilities A, B, C, etc (list all that could have seeps); Each seep that is flowing	Physical stability, presence of water(15); Photograph, field pH (SU), field specific conductance (µS/cm), Profile I(2)	Semi-Annually (Q2 and Q4); Semi-Annually (Q2 and Q4 when flowing)

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

Abbreviations:

gal = gallons; gpm = gallons per minute; gpd = gallons per day; AMSL = above mean sea level; $CaCO_3$ = calcium carbonate; N = nitrogen; SU = standard units; pCi/L = picocuries per liter; DO = dissolved oxygen; mg/L = milligrams per liter; MGD = million gallons per day; MWMP = Meteoric Water Mobility Procedure; ANP/AGP = Acid Neutralizing Potential:Acid Generation Potential ratio; PCS = Petroleum-Contaminated Soil; VOCs = volatile organic compounds; SVOCs = semi-volatile organic compounds; TPH = total petroleum hydrocarbons; °F = degrees Fahrenheit; µS/cm = microSiemens per centimeter; ASTM = American Society for Testing and Materials; EPA = U.S. Environmental Protection Agency; WAD = weak acid dissociable; Q = calendar quarter of the year

Footnotes:

(1) The sump must be inspected and evacuated on a more frequent basis than weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system) if the fluid level is above the top of the sump or the invert of any pipe which discharges into the sump, whichever level is lower, or if the potential exists to exceed the sump capacity. (for closure permits, if inspection frequency is relaxed from weekly, also add the following: The sumps must also be inspected during, if possible, and after major storm events in accordance with Part I.I, and at any other time when an increase inleakage flow may occur (e.g., during spring melt, etc.)). Records are required documenting volume, date, and time of extraction to show that sumps are maintained in this condition.

(2) Profile I:

Alkalinity (as $CaCO_3$)	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium

Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH (± 0.1 SU)[13]	WAD Cyanide
Barium	Iron	Potassium	Zinc
Beryllium	Lead	Selenium	-

(Note 1: if this is a physical separation permit, consider eliminating WAD Cyanide from the Profile I list. Typically, when we've done that we've still called it Profile I.)

(Note 2: if the ore, waste rock, or process fluid may contain elevated concentrations of radionuclides, consider using a Profile I-R instead of, or in addition to, Profile I for some or all monitoring points, as applicable. If you add Profile I-R, also consider adding a separate footnote identifying the following Division reference values for radionuclides (because they aren't listed on NDEP Form 0190): 15 pCi/L for Gross Alpha, 5 pCi/L for Combined Radium, and 0.03 mg/L for Uranium) Profile I-R includes Profile I plus the following:

Gross Alpha (pCi/L)	226Radium + 228Radium (pCi/L)	Uranium	-

(Note 3: if the ore, waste rock, or process fluid may contain elevated concentrations of other constituents that are not included in the typical Profile I, consider whether it may be appropriate to add those constituents to the Profile I for that site on a case-by-case basis, especially if there are applicable drinking water standards that apply to those additional constituents.)

(3) When static testing[5] characterization of Mined Materials shows the potential for acid generation as set forth in the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation," the Permittee shall, as applicable, notify the Division in writing and initiate kinetic testing[6] within 10 days.

If the kinetic test results indicate acid generation conditions exist, the Permittee shall submit in writing, within 30 days, the methods proposed for providing containment of these materials and the anticipated impact this acid generation potential may have on final stabilization of all components affected as defined in Nevada Administrative Code (NAC) 445A.359.

(4) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E 2242 (or the most current method).

(5) Acid Neutralizing Potential/Acid Generating Potential (ANP/AGP, also known as static testing or acid-base accounting) shall be performed by a Nevada-approved laboratory, using a LECO-type analysis, with full sulfur speciation, in accordance with the 2015 Update Nevada Modified Sobek Procedure.

(6) Kinetic testing (humidity cell testing) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method D 5744-07 Option 'A' (or the most current approved method); tests shall be run for a minimum of 20 weeks and for a longer duration if warranted or recommended by the analytical laboratory or required by the Division; samples shall be collected weekly (all weeks) and measurements shall be recorded for redox potential, pH, specific conductance (µS/cm), acidity and/or alkalinity (as deemed appropriate by the laboratory), sulfate, iron (total, plus ferric and ferrous speciation if total iron > 0.6 mg/L and pH < 5 SU), and dissolved calcium and magnesium; weekly filtered extracts per the method will be digested and analyzed for

total recoverable concentrations during week 0, 1, 2, 4, 8, 12, 16, and 20; 4-week extracts thereafter (i.e., week 24, 28, 32, etc.) shall be analyzed by a Nevada-certified analytical laboratory for Profile I[2] parameters, and specific conductance (µS/cm) and acidity and/or alkalinity shall be recorded as recommended by the analytical laboratory; final results reported shall include initial and final static test results[5], a Profile I[2] analysis of the final leachate, all kinetic test results above, and any additional analyses required by the Division.

(7) Volatile Organic Compounds (VOCs) analyzed by a Nevada-certified laboratory using EPA Method 8260B.

(8) Semi-Volatile Organic Compounds (SVOCs) analyzed by a Nevada-certified laboratory using EPA Method 8270D.

(9) Total Petroleum Hydrocarbons (TPH) analyzed by a Nevada-certified laboratory using EPA Method 8015 Modified. If any gasoline-range petroleum is suspected, or if the source-type is unknown, both TPH-P (purgeable) and TPH-E (extractable) are required. Otherwise, only TPH-E is required.

(10) Each segregated source type of PCS must be sampled separately pursuant to the approved sample collection protocol. For temporary holding pads and treatment cells, analyses are required only in quarters when PCS removal from the pad is anticipated. Removal to an on-site disposal location is authorized if PCS meets screening levels. For approved on-site disposal locations, analyses are required only in quarters when PCS has been provisionally placed subject to screening results.

(11) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed pursuant to 40 Code of Federal Regulations (CFR) 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846. Operator knowledge must be adequately described and sufficient to justify the determination.

(12) Profile III:

Alkalinity (as $CaCO_3$)	Calcium	Mercury	Strontium
Bicarbonate	Chloride	Molybdenum	Sulfate
Total	Chromium	Nickel	Thallium
Aluminum	Copper	Nitrate + Nitrite (as N)	Tin
Antimony	Fluoride	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Iron	pH (± 0.1 SU)[13]	Total Suspended Solids
Barium	Lead	Phosphorus	Uranium
Beryllium	Lithium	Potassium	Vanadium
Boron	Magnesium	Selenium	Zinc
Cadmium	Manganese	Sodium	-

(13) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as $CaCO_3$ equivalent).

(14) (for closure permits with presence of water monitoring in pits)For presence of water, state whether the pit surface is dry, damp, or wet(ponded or flowing water). If ponded or flowing water is observed, the Permittee shall perform the required monitoring for pit lakes. Field specific conductance shall be reported as total dissolved solids.

(15) (for closure permits with monitoring of waste rock storage facilities)Provide a visual evaluation of each waste rock storage facility for physical stability (e.g., stable, unstable, or slope failure), presence of water, and seepage. If visibly unstable, or slope failure, describe. For presence of water, identify whether the surface and toes of the waste rock storage facility are dry, damp, or wet (ponded or flowing water). If seepage is emanating from any portion of a waste rock storage facility, the Permittee shall perform the required monitoring for seeps. Field specific conductance shall be reported as total dissolved solids.

E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.

F. All sampling and analytical accuracy shall be in accordance with Part II.E.

G. Permit Limitations

1. The daily accumulation or flow exceeding 20 gallonsper day averaged over the quarter in the leak detection sump/port/pipe identified in Part I.D.2.
2. The daily accumulation or flow exceeding 10 gallons per day averaged over the year in the leak detection sump/port/pipe identified in Part I.D.2.
3. The daily accumulation or flow exceeding 150 gallons per day averaged over the quarter in the leak detection sump/port/pipe identified in Part I.D.3.
4. The daily accumulation or flow exceeding 50 gallons per day averaged over the year in the leak detection sump/port/pipe identified in Part I.D.3.
5. Failure to meet a Schedule of Compliance date or requirement.
6. The storage of process solution in a single-lined pond for more than 20 consecutive days for any single event.
7. Except as otherwise allowed by this Permit, a minimum 2-foot freeboard shall be maintained in all ponds.
8. The hydraulic head on the tailings impoundment piezometers located in the drainage blanket should not exceed XYZ feet. This limitation will not apply to the first seven months of operation of any new tailings impoundment or cell.
9. The tailings impoundment embankment crest elevation shall not exceed X,XXX feet AMSL.
10. The tailings impoundment supernatant pool shall be managed as necessary to maintain a minimum 2-foot freeboard. In beach areas, a damcrest elevation shall be maintained X feet higher than the adjacent maximum tailings elevation.

11. Tailings material may not be removed from the tailings impoundment, except with prior written authorization from the Division.

12. Heap leach pads, as measured vertically from the top of the synthetic liner for any point on the pad, constructed in excess of a maximum permitted elevation of XYZ feet over minimum XX-mil thickness HDPE synthetic liner.

13. The cumulative solution application rate to the heap leach pad should not exceed the permitted X,XXX gallons per minute (gpm). Additionally, the solution application rate *per unit area* should not exceed 0.005 gpm/ft^2.

14. The _____ leach pad injection system shall be operated in accordance with the Division-approved design to minimize the potential to create a phreatic surface within the heap material:

    a. Injection boreholes shall be drilled to a depth not less than 50 feet above the liner surface;
    b. Boreholes shall be placed no less than 100 feet apart;
    c. Two adjacent injection wells shall not receive solution simultaneously;
    d. Solution shall not be applied to the surface of an area under active injection;
    e. A seal ring shall be used to control the zones receiving injected solution within each casing both during the pressure stimulation phase and the leaching phase;
    f. Injection shall not occur until the static solution level in the well is established, and is at or below the lowest perforations in the casing;
    g. Solution levels shall be monitored in all wells within 200 feet from an active injection well. If the solution level rises in any of these nearby wells, the injection rate shall be reduced until the solution level drops again. If the solution level does not drop in a well that initially rose, injection shall be terminated and may be moved to another well that did not exhibit a rise in solution level;
    h. Injection rates shall not exceed the permitted application rates for the heap;
    i. Daily visual observation of the side slopes will be conducted (*consider including this monitoring in Part I.D*). If solution seepage appears on the heap side slopes, solution injection shall be terminated and may be moved to another zone or well that did not exhibit a rise in solution level; and
    j. The _____ injection system shall be operated in a non-sequential progression to avoid creating and sustaining a phreatic surface in the heap. The operation shall not proceed in sequence from north to south, left to right, circular, or any other pattern that causes adjacent wells to be operated in succession to one another.

15. PCS that exceeds screening levels shall not be placed at an on-site disposal location.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

H. The facility shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water) (Only for physical separation facilities that aren't manned every day, add the following phrase) every day that the site is manned. A written and/or electronic record of daily accumulations of precipitation shall be maintained on site (for closure permits change to: at the office of record of the Permittee). Depending on site topography and size, multiple meteorological stations may be required.

I. The Permittee shall inspect all control devices, systems, and facilities weekly (for closure permits consider relaxing frequency, but not more than necessary, if site is not continuously manned and the reduction is justified based on monitoring results and long-term performance of the monitored system), and during (when possible) and after major storm events. These inspections are performed to detect evidence of:

1. Deterioration, malfunction, or improper operation of control or monitoring systems;
2. Sudden changes in the data from any monitoring device;
3. The presence of liquids in leak detection systems; and
4. Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

J. Prior to initiating permanent closure activities at the facility, or at any process component or other source within the facility, the Permittee must have an approved final plan for permanent closure.

K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year thereafter until the Permit is terminated or the facility hasreceived final closure certification from the Division.

L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan. The approved PCS Management Plan and the Division Guidance for Mine-Site PCS Management Plans are hereby incorporated into this Permit by reference.

M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.

N. Continuing Investigations: None Required (Delete "None Required" if you choose to include any continuing investigation items below. Customize the continuing investigation items to the individual Project; do not require pitlake study or WRMP updates for Projects that don't need them)

1. The Permittee shall submit to the Division for review and approval an updated pit lake study and ecological risk assessment with each Permit renewal and with any application to modify the Permit that could affect the pit lake predictive model. The study and assessment shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data, alternative pit lake or backfill scenarios, and mitigations to reduce ecological risk, as applicable. Approval may require modification of the Permit and payment of modification fees.
2. The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with each Permit renewal and with any application to modify the Permit that could affect the WRMP. A revised WRMP must also be approved prior to initiating mining or in-pit backfill activities not previously approved.

The WRMP must include representative characterization data for all anticipated waste rock and overburden in accordance with the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation," in addition to a detailed description of how, when, and where the materials will be managed and monitored, and appropriate controls to eliminate any potential to degrade waters of the State, if applicable. Approval may require modification of the Permit and payment of modification fees.

II. General Facility Conditions and Limitations

A. General Requirements

1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he determines good and valid cause (such as an act of God, a labor strike, materials shortage, or other event over which Permittee has little or no control) exists for such revision.

2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.

3. Whenever the Permittee becomes aware that he failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

B. Reporting Requirements

1. The Permittee shall submit quarterly reports (for closure permits consider: semi-annual?), in both hard copy and a Division-approved electronic format (For physical separation facilities, consider requiring only hard copy format), which are due to the Division on or before the 28th day of the month following the quarter (for closure permits consider: by January 28th and July 28th of each year?) and must contain the following:

a. Monitoring results from the leak detection sumps or piezometers identified in Part I.D, reported on Nevada Division of Environmental Protection (NDEP) Form 0590 or equivalent;

b. Analytical results of the solution collected from monitoring locations identified in Part I.D, reported on NDEP Form 0090/0190 (as appropriate) or equivalent;

c. Water and collar elevations for site monitoring wells identified in Part I.D;

d. Analytical results of the MWMP-Profile I and ANP/AGP testing for the materials identified in Part I.D, reported on NDEP Form 0090/0190 (as appropriate) or equivalent;

e. Analytical results for the pit lakes identified in Part I.D, reported on NDEP Form 0290 or equivalent;

f. Other monitoring results for the pit lakes identified in Part I.D;

g. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent;

h. For any kinetic test initiated, continued, or terminated with Division approval during the quarter, provide a brief report of the test status and an evaluation of the results to date, which shall include all analytical data generated from the date testing was initiated through the reporting quarter;

i. Analytical results, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.9 through I.D.11, pertaining to the approved PCS Management Plan; and

j. An updated list of all PCS sources managed under the approved PCS Management Plan, with any new or changed sources highlighted, reported on NDEP Form PCS-01 or equivalent; current screening levels for each on-site disposal location; and a detailed explanation of any revisions to screening levels.

Facilities which have not initiated mining or construction, must submit a quarterly report identifying the status of mining or construction. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

2. The Permittee shall submit an annual report, in both hard copy and a Division-approved electronic format (For physical separation facilities, consider requiring only hard copy format), by February 28th of each year, for the preceding calendar year, which contains the following:

a. Analytical results of water quality samples collected from water supply wells reported on NDEP Form 0190 or equivalent;

b. A synopsis of releases on NDEP Form 0390 or equivalent;

c. A brief summary of site operations, including the number of tons of ore milled or placed on heaps (as applicable) during the year, construction and expansion activities, and major problems with the fluid management system;

d. A table of total monthly precipitation amounts recorded in accordance with Part I.H, reported for either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter (for closure permits consider extending beyond a five-year history if warranted for specific monitoring locations);

e. An updated version of the facility monitoring and sampling procedures and protocols;

f. An updated evaluation of the closure plans using specific characterization data for each process component with respect to achieving stabilization; and

g. Graphs of leak detection flow rates, pH, total dissolved solids (TDS), sulfate, chloride, nitrate + nitrite (as N), WAD cyanide, fluoride, zinc, and arsenic concentration (as applicable), versus time for all fluid sampling points. These graphs shall display either a five-year history previous to the date of submittal or

the history since initial Permit issuance, whichever is shorter (for closure permits consider extending beyond a five-year history if warranted for specific monitoring locations). Additional parameters may be required by the Division if deemed necessary.

3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.

a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.

b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations (CFR) Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.

c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.

a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility;

iii. Date, time, and type of incident, condition, or circumstance;

iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;

v. Human and animal mortality or injury;

vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and

vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.

b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:

i. A description of the incident and its cause;

ii. The periods of the incident (including exact dates and times);

iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;

iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and

v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.

c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:

i. Determine the effect and extent of each incident;

ii. Minimize any potential impact to the waters of the State arising from each incident;

iii. Minimize the effect of each incident upon domestic animals and all wildlife; and

iv. Minimize the endangerment of the public health and safety which arises from each incident.

d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure is complete. Therefore, unless permanent closure has been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.

2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in par agraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after a ny change in previously submitted information.
3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all applications for Permit modifications, shall be submitted in both ha rd copy and a Division-approved electronic format. (For physical separation facilit ies, consider deleting this item entirely, to eliminate the electronic submittal requirement. Either way, ensure that this Part is consistent with Parts II.B.1 and II.B.2)
5. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exi sts for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.
6. The Permittee shall maintain a copy of, and all mod ifications to, the current Permit at the permitted facilities (for closure permits chang e to: at the office of record of the Permittee) at all times.
7. The Permittee is required to retain during operatio n, closure, and post-closure monitoring (for closure permits delete; operation,), all records of monitoring activities and analytical results, including all original stri p chart or data logger recordings for continuous monitoring instrumentation, and all cali bration and maintenance records. This period of retention must be extended during th e course of any unresolved litigation.
8. The provisions of this Permit are severable. If an y provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.
9. The Permittee is authorized to manage fluids and so lid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it au thorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;

2. Have access to and copy any record that must be kept per the conditions of this Permit;

3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and

4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:

a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and

b. The person(s) who inspected, observed, measured, or sampled.

3. Samples must be taken, preserved, and labeled according to Division approved methods.

4. Standard environmental monitoring chain of custody procedures must be followed.

5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, analytical methods performed (electronic version of report only), laboratory reference numbers, sample dates, and laboratory test dates.

6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I, Surface Water Profile, and Profile III parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division; samples for Profile III parameters shall be unfiltered and analyzed for the total recoverable fraction. (Remove references to Profiles that aren't used in this Permit. Note: if a surface water body is monitored in Part I.D, especially one with established beneficial uses, consider including a separate Surface Water Profile in Part I.D. Footnotes, and add the following sentence here) Samples for Surface Water Profile parameters shall be analyzed in accordance with NAC 445A.1236 and any other applicable surface water regulations. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

F. Permit Modification Requirements

1. Any material modification, as defined at NAC 445A.365, plan to construct a new process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with

the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.410, 445A.412, 445A.414, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.

2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.

3. The Permittee shall notify the Division in writing at least 30 days before the introduction of process solution into a new process component or into an existing process component that has been materially modified, or of the intent to commence active operation of that process component. Before introducing process solution or commencing active operation, the Permittee shall obtain written authorization from the Division.

4. The Permittee must obtain a written determination from the Administrator of any planned process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.

5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Fanny Farkle
Date: Day Month Year

Revision 00: 16 February 2005; employee access statement deleted.

Revision 01: 24 May 2005; Bureau Chief Title changed to Chief, Bureau of Mining Regulation and Reclamation.

Revision 02: 25 May 2006; modified Part I.L to include new PCS Management Plan wording.

Revision 03: 14 February 2007; add NAC 445A.4155 to Part II.F.1.

Revision 04: 01 July 2008; add leak detection sump capacity exceedance to Part I.D footnote 1; revise Part I.L hydrocarbon-contaminated soil management wording.

Revision 05: 29 September 2008; in Part I.L change "...remediate hydrocarbon-contaminated soil..." to "treat Petroleum-Contaminated Soil (PCS)".

Revision 06: 31 March 2009; in Part I.D, hyphenate 'MWMP-Profile I' and 'MWMP-Profile II'

Revision 07: 04 June 2009; in Part II.E.6 substitute 'reference value' for terms "MCL" and "standards".

Revision 08: 11 August 2009; update for new PCS Management Plan in Part I.D, Part I.D Footnotes, Part I.G, Part I.L, and Part II.B.1.

Revision 09: 02 February 2010; update Profile I and Profile II parameter tables per versions 09/20/09 and 12/30/09 respectively.

Revision 10: 21 April 2010; add form number to PCS reporting in Part II.B.1.g and update nitrate reference to nitrate + nitrite in Part II.B.2.g.

Revision 11: 18 May 2010; add new Part II.C.2 requirement to update Permittee contact information.

Revision 12: 11 May 2011; revise Part II.B.3 and Part II.B.4 reporting text and update Chief signature block to Bruce Holmgren.

Revision 13: 07 June 2011; add new Part II.B.1.f to require quarterly reporting of any kinetic test status and add ethylene glycol to Part II.B.3.d.

Revision 14: 20 July 2011; delete Part I.D.6 "Spent Leach Ore" and add "Leach Pad Ore" with quarterly acid-base accounting only to 'new' Part I.D.6 Mined Materials and replace term " waste rock" with "Mined Materials" in Part I.D Foot note (4).

Revision 15: 01 May 2012; capitalize all 'Permit' references; add common abbreviations for Part I.D; update Part I.D footnote (4) Division guidance document reference from a specific date version to "current version"; add new Part I.D footnotes (5), (6), and (7) to specify test methods for MWMP, ANP/AGP, and kinetic testing analyses and reformat subsequent footnote numbers; minor updates/clarifications in Pert I.G.

Revision 16: 17 May 2012; moved 'Abbreviations' from the head to the tail of Part I.D.

Revision 17: 10 September 2012; changed 'Nevada Modified Sobek Method' to 'Nevada Modified Sobek Procedure' in Part I.D. footnote (6); changed 'quantity' to 'total quantity' in Parts II.B.3.c & d; changed 'Ethylene Glycol' to 'Coolants' in Part II.B.3.d.

Revision 18: 30 November 2012 changed phone numbers to all be the same format in Parts II.B.3.a and c.

Revision 19: 13 March 2013; Part I.D.3: added leak detection sump capacity; Part I.D.7: added collar elevation for monitoring wells; Part I.D: bold format for 'Abbreviations:', added abbreviation for gallons, and changed pH standard unit abbreviation to SU (no periods); modified Part I.D. footnote (7) (kinetic testing); new Part I.G.6 (construction without approval); new Part I.G.8 (minimum freeboard); new Parts I.G.10, 11, 12 (tailings impoundments); new Part I.G.15 (leach pad injection systems); Parts II.B.3.c and II.B.4.a: changed 5 PM to 5:00 PM; Parts II.B.3 a & c: added parentheses around telephone area code (888).

Revision 20: 29 May 2013; Page 1: added 'Secretary of State Listed' next to company name; Part I.H: added 'and/or electronic'; Part I.J: changed 'final permanent closure plan' to 'final plan for permanent closure'; Part II.B.2.d & g: modified to allow shorter time period if less than five years since Permit issuance; Part II.B.2.f: made 'closure plans' plural; Part II.C.6: added 'or data logger'.

Revision 21: 12 July 2013; replaced "constituents" with "parameters" in Parts I.D. footnote (7), II.B. 2.g, and II.E.6.

Revision 22: 22 August 2013; Page 1: changed font to bold for project name and number of tons ore to be processed per year.

Revision 23: 13 December 2013; Part I.D: added colon after Monitoring Requirements; Part I.D.8: Deleted PCS definition; Part I.D. Abbreviations: added $CaCO_3$, N, PCS, VOCs, SVOCs, TPH; Part I.D. Footnotes (5), (6), and (7): added reference to approved laboratory; Part I.D. Footnotes (5) and (7): added capitalized Method to referenced analytical methods; Part I.D. Footnote (7): deleted pH analyses because they are included in Profile I analyses, and other minor changes; Part I.D. Footnotes (12): defined CFR; Part I.G.6: deleted required approval of permit modification (duplication with Part II.F.1) and added shall not degrade waters; Part I.G.15: added colon; Part I.M: new Part to address dust suppressants; Part II.B.1.f: added semicolon; Part II.E.5: references to approved laboratory; Part II.F.1: reworded to include new process components, other NACs, and to prohibit construction until approved; Part II.F.2: minor rewording; and Part II.F.4: added process component construction and specification of type of Permit modification.

Revision 24: 02 June 2014; Added Part I.D.11 for pit lake monitoring; Added ºF and µS/cm to Part I.D. Abbreviations and Part I.D. Footnote (7); Revised Part I.D. Footnote (2) and Part II.B.2.g with Nitrate + Nitrite (as N), and Nitrogen, Total (as N); Hyphenated Nevada-approved and Nevada-certified laboratories throughout; Added Part I.D. Footnote (13) for new Profile III; Deleted Part I.G.6 "The facility shall not degrade…" because discharges already prohibited in zero-discharge permits; Revised Part II.B.1.c to replace water levels with water and collar elevations; Added Parts II.B.1.e and II.B.1.f for pit lake monitoring; Revised Part II.E.6 with Profile III, practical quantitation limits, and filtering requirements.

Revision 25: 21 August 2014; Revised Permit Number to include "(New/Renewal YYYY, Revision xx)" on page 1 and in header on other pages; Revised Part I.B with comments regarding SOC items; Added Parts I.B.1 and I.B.2 regarding revisions to pit lake study and WRMP; Revised Part I.D paragraph on requests for reductions of monitoring requirements to use "parameters" and to not limit the reductions to "analyses;" Revised Part I.D. Footnote (3) to modify the Profile II list with removal of "(Total)" after phosphorus; Revised Parts I.D. Footnotes (8) through (10) to require a Nevada-certified lab; Revised Part I.D. Footnote (13) to modify the Profile III list with "Nitrate + Nitrite (as N)," instead of "Nitrate (as N);" Revised Part II.B.2.g to remove "as SO4" after sulfate.

Revision 26: 14 November 2014; Revised Part I.D. Footnotes (2) and (3) to remove nickel from Profile I and add it to Profile II; Corrected a formatting error in Parts I.I.1, I.I.2, and I.I.3; Revised Part II.D to remove the possessive form in the heading.

Revision 27: March 2015; Added blue font color for items that need to be overwritten with Project-specific information; Reduced line spacing at top of page 1 to keep it on one page; Added text and formatting in paragraph 2 on page 1 for county, township & range, and nearest town; Revised paragraph 4 on page 1, and Part II.D. 1, to remove possessive form of "Permittee's"; Moved boiler SOC items for pit lake studies and waste rock management plans from Parts I.B.1 and I.B.2 to new Parts I.N.1 and I.N.2; Revised Part I.D to put units of measurement in parentheses (e.g., "(feet)" instead of "in feet"); Deleted "formal" from Part I.D paragraph about monitoring reductions; Revised Parts I.D. Footnote (4) and I.L to remove possessive form of "Division's"; Also revised Part I.D. Footnote (4) to add the definition for NAC since this is now the first occurrence of NAC in the boilerplate; Revised Part I.D. Footnote (6) to reference the 2015 Update NV Mod Sobek Procedure; Revised Part I.E to replace "spill" with "release"; Revised Parts II.B. 1.g and II.B.2.b to eliminate "spills and"; Revised Part II.C.4 to add Permit suspension and to delete the distinction between revoking and reissuing or permanently revoking; Revised Part II.D.3 to add photographs; Revised Part II.E.5 to add analytical methods performed; Revised Part II.E.6 regarding customization and Surface Water Profiles; Revised the page header to include "New/Renewal", as on page 1.

Revision 28: July 2015; New revision format on page 1; minor reformat of Profile III table in I.D. Footnote (13); comma added in Part II.B.2.c.

Revision 29: September 2015; revised paragraph at end of Part I.D to mention modification fees; added ASTM, EPA, and WAD in Part I.D. Abbreviations; revised I.D. Footnotes (2) and (13), and added I.D. Footnote (14) regarding acidity analyses; revised Parts I.H and II.B.2.d for meteorological stations; added explanatory comments to Part I.N; added definition of NDEP (the Division) to Part II.B.1.a; added –Profile I to Part II.B.1.d; and added one word to II.E.6 for clarity.

Revision 30: October 2015; revised Part I.D.1 with underlining and to list well number individually; a lso eliminated the use of written-out numbers with numerals in parentheses throughout.

Revision 31: November 2015; revised page 1 to remov e leading zeros from single-digit township and rang e identifiers; revised Part I.D. Footnote (2) to add Note 1 for physical separation facilities (Profile I without WAD cyanide) and Note 2 for radionuclides (Profile I-R) for consideration by permit writers.

Revision 32: February 2016; Changed Bureau Chief to Joe Sawyer; Added sentence at end of Part I.B requ iring written approval of SOC item completion; Part I.G.6 number convention revision; Modified Parts II.B.1 and II.B.2 to require electronic monitoring report submittals; Revised Part II.B.1.a with a different definition for "NDEP "; Added Part II.C.4, requiring electronic submitta ls; Revised Part II.E.5 so analytical methods need only be submitted with electronic version of r eports; Modified Parts II.F.1 and II.F.4 to include proposed changes of Permit requirements; Modified Part II.F.3 to require Division authorizat ion to commence active operation.

Revision 33: September 2016; deleted Profile II and modified Part I.D. Footnote numbering accordingly; added a requirement to Part II.E.6 to report non-detect analytical results quantitatively as < PQL; added notes to several Parts for how to modify boiler for closure permits; also made closure-related modifications and other minor revisions; deleted Part I.D. Footnote (3); added or revised page 1 and Parts I.A, I.A.1, I.A.2, I.A.3, I.D.5, I.D.6, I.D.11, I.D.12, I.D. Abbreviat ions, I.D. Footnote (1), I.D. Footnote (14), I.D. F ootnote (15), I.H, I.I, I.I.1, I.I.2, I.I.4, I.J, I I.A.2, II.B.1, II.B.2.d, II.B.2.g, II.B.3.c, II.B.3.d, II. C.1, II.C.6, II.C.7, and II.E.6.

Bureau of Mining Regulation and Reclamation

POLICY AND PROCEDURES FOR REGULATION BRANCH INSPECTIONS

The Regulation Branch of the Bureau of Mining Regul ation and Reclamation (BMRR) performs inspections of mining facilities. Regulation Branc h inspections are in addition to inspections performed by the Reclamation and Closure Branches o f the BMRR. There are several types of Regulation Branch inspections performed:

1. Compliance Inspections - These inspections are p erformed by the Compliance Inspectors. The inspections are scheduled on a periodic basis with varying frequency depending on the size of the facility and the potential to degrade waters of the State. The goal is to inspect large sites at least four times a year, medium sites twice a year, and s mall or inactive sites once a year. An annual inspection schedule is prepared at the beginning of each calendar year. The inspections are performed in accordance with the Compliance Inspection Guidelines.

2. Permit/Construction Inspections - These inspections are performed by the Permit Writers. They are performed on an as-needed basis, usually before a permit is issued, or corresponding with significant construction activity. The purpose of t hese inspections is to familiarize the Permit Writer with the layout of a new facility or to ensure that construction of process components is in accordance with the approved engineering design.

3. Investigative Inspections – These inspections ar e performed in response to a release of contaminants or a complaint requiring follow-up by the BMRR. These inspections are performed by the Compliance Inspector. The purpose of these inspections is to investigate and document the severity and extent of a release in preparation for potential enforcement action, or to evaluate the validity of a complaint and recommend corrective actions.

The Bureau of Land Management, U.S. Forest Service, and or other State, federal and local government agencies may attend a BMRR Regulation Branch inspection. The permittee is notified in advance for most inspections, except for certain investigative inspections where forewarning is not desirable. Photos or video recordings are takenas necessary to document conditions at the site.

An Inspection Report is prepared to document each i nspection. Noted in the report are any problems or concerns identified during the inspecti on, and deadlines for corrective action if required. The Report is sent in letter form to the permittee, with copies to the federal land management agency, if applicable. The Reports and a ssociated documentation are kept in the BMRR project files.

Bureau of Mining Regulation and Reclamation

POLICY AND PROCEDURES FOR ENFORCEMENT ACTIONS

The Bureau of Mining Regulation and Reclamation (BMRR) takes enforcement actions in accordance with Nevada Revised Statutes (NRS) 445A.675 and 445A.690. The Bureau Chief decides whether a violation requires enforcement action.

The enforcement document issued by BMRR is a Finding of Alleged Violation and Order (FOAV/Order). The FOAV describes the situation and which statutes, regulations, or permit conditions have allegedly been violated. The Order sets forth corrective actions to be undertaken to correct the violation(s) and a schedule for completion of the corrective actions.

An FOAV/Order is normally prepared by the Regulation Branch Compliance Inspector assigned to the mine facility. The draft FOAV/Order is reviewed by the Regulation Branch Supervisor and the Bureau Chief. The final FOAV/Order is effective upon issuance, but an appeal may be filed within 30 days, to the State Environmental Commission.

A Show Cause meeting is required in an Order but can be waived at the defendant's request. This meeting provides an opportunity for the defendant to present all of the information regarding the incident in question, including a description of environmental impacts and corrective actions taken.

Upon completion of the Show Cause meeting, a meeting of the Penalty Panel is scheduled to hear the case. The Penalty Panel meeting is held in accordance with the Division Civil Penalty Policy. The Panel determines a proposed settlement amount. The Bureau Chief or designate, contacts the defendant to discuss the proposed settlement amount and the option of a supplemental environmental project (SEP) in lieu of the settlement amount. The Compliance Inspector sends a letter to the defendant describing the decision of the Penalty Panel and the amount of the proposed settlement, if any. If the defendant accepts the settlement amount, the acknowledgement portion of the letter is signed and returned to the BMRR.

If the defendant does not accept the settlement amount, a counterproposal may be offered. This counterproposal usually consists of a payment plan that is presented to the Bureau Chief for acceptance, or further negotiation. If a settlement cannot be agreed upon, the case is referred to the Office of the Attorney General for processing and collection.

When confirmation is received of the payment of the full settlement amount or completion of an approved SEP, the case is closed and retained in the BMRR enforcement file. If the defendant does not pay the settlement amount or complete an approved SEP, the case will either be turned over to the State Treasure for collection or referred to the Attorney General.

Per Division policy, no permits are to be issued, modified or renewed for facilities which have unresolved Division enforcement actions without Bureau Chief approval. This applies also to facilities which are owned, operated, or managed by persons having unresolved enforcement actions at other facilities under their control.

Nevada NAC 519A Reclamation Regulations

Nevada Bureau of Mining Regulation and Reclamation

Mining and Exploration Regulation

Nevada Administrative Code

CHAPTER 519A - RECLAMATION OF LAND SUBJECT TO MINING OPERATIONS OR EXPLORATION PROJECTS

REGULATION OF MINING OPERATIONS AND EXPLORATION PROJECTS

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General Provisions

NAC 519A.010 Definitions. (NRS 519A.160) As used in NAC 519A.010 to 519A.415, inclusive, unless the context otherwise requires, the words and terms defined in NAC 519A.015 to 519A.095, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R090-00, 7-27-2000; R020-02, 4-5-2002; R097-05, 10-31-2005)

NAC 519A.015 "Abandonment" defined. (NRS 519A.160) "Abandonment" means the permanent cessation of operation or maintenance of an exploration project or mining operation without the intent to resume operation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.020 "Active" defined. (NRS 519A.160) "Active" means that operations or actions are being conducted at an exploration project or mining operation which results in land being affected.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.025 "Affected" defined. (NRS 519A.160) "Affected" means that the surface of the land is or will be disturbed by an exploration project or mining operation, or that the land is used:

1. As an evaporation or settling pond, leach dump, placer area or tailings pond or dump; or
2. In conjunction with any structure, facility, equipment, machine, tool, material or property incident to an exploration project or mining operation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.030 "Division" defined. (NRS 519A.160) "Division" means the Division of Environmental Protection of the State Department of Conservation and Natural Resources.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.035 "Exploration project" defined. (NRS 519A.160)

1. "Exploration project" means all activities conducted in this State by a person on or beneath the surface of the land for the purpose of, or in connection with, determining the presence, location, extent, depth or grade of any mineral.
2. The term does not include an exploration project which is limited to a surface disturbance of not more than 5 acres in any calendar year. To determine the area of the surface disturbed:

(a) All land disturbed and left unreclaimed by an operator within a 1-mile radius of the center of the project must be considered; and

(b) Land shall be considered reclaimed if action has been taken to stabilize the land to a condition designed to result in the establishment of a productive postmining use of the land.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.040 "Growth medium" defined. (NRS 519A.160) "Growth medium" means a material which is capable of supporting vegetation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.043 "Major modification" defined. (NRS 519A.160) "Major modification" means:

1. A change in the postmining land use which requires reclamation techniques which are significantly different from the techniques included in the approved plan for reclamation;

2. The addition of a type of disturbance which was not previously included in the approved plan and which cannot be reclaimed in a manner that is substantially similar to the reclamation techniques included in the approved plan;

3. The proposed disturbance is equal to 25 percent or more of the acreage in the approved plan; or

4. A change in the visual appearance of the reclaimed areas that is substantially different from the visual appearance which was discussed or commented upon during the public comment period.

(Added to NAC by Environmental Comm'n by R097-05, eff. 10-31-2005)

NAC 519A.044 "Mine-impacted waters" defined. (NRS 519A.160) "Mine-impacted waters" means any contaminated water:

1. Resulting from a mining operation, including, without limitation:

(a) An underground mine;

(b) A mine pit penetrating the water table; or

(c) Waste or development rock piles or other nonprocess components; and

2. Requiring stabilization, management, control or treatment to prevent or mitigate:

(a) The degradation of the waters of this State; or

(b) Adverse effects to the health of human, terrestrial or avian life.

(Added to NAC by Environmental Comm'n by R052-15, eff. 12-21-2015)

NAC 519A.045 "Mining operation" defined. (NRS 519A.160) "Mining operation" means all activities conducted in this State by a person on or beneath the surface of land for the purpose of, or in connection with, the development or extraction of any mineral. The term does not include a small mining operation or a sand or aggregate pit.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.050 "Minor modification" defined. (NRS 519A.160) "Minor modification" means:

1. A change involving more than 10 acres but less than 25 percent of the acreage included in the approved plan for reclamation if:

(a) The types of disturbances are included in the approved plan; or

(b) The change, including, but not limited to, the postmining land use, does not require reclamation techniques significantly different from those included in the approved plan;

2. Changes in the equipment used for reclamation; or

3. Changes to the final contours.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R097-05, 10-31-2005)

NAC 519A.055 "New exploration project" defined. (NRS 519A.160) "New exploration project" means an exploration project which was not active before October 1, 1990.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.060 "New mining operation" defined.(NRS 519A.160) "New mining operation" means a mining operation which was not active before October 1, 1990.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.065 "Operator" defined. (NRS 519A.160) "Operator" means any person who owns, controls or manages an exploration project or a mining operation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.068 "Process fluid stabilization" defined. (NRS 519A.160) "Process fluid stabilization" means binding, containing or otherwise treating contaminants in a fluid, including, without limitation, meteoric waters, that have intentionally or unintentionally been introduced into a heap leaching facility or tailings facility to prevent the contaminants from degrading the waters in this State through naturally occurring environmental conditions which may be reasonably expected at the mine site.

(Added to NAC by Environmental Comm'n by R090-00, eff. 7-27-2000)

NAC 519A.070 "Productive postmining use of the land" defined. (NRS 519A.160) "Productive postmining use of the land" means a use which supports activities including:

1. Wildlife habitat;
2. Livestock grazing;
3. Agriculture and ranching;
4. Industry;
5. Recreation; or
6. Any other activities which benefit the State of Nevada, its residents or the owner of the land.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.075 "Reclamation" defined. (NRS 519A.160) "Reclamation" means actions performed during or after an exploration project or mining operation to shape, stabilize, revegetate or otherwise treat the land in order to return it to a safe, stable condition consistent with the establishment of a productive postmining use of the land and the safe abandonment of a facility in a manner which ensures the public safety, as well as the encouragement of techniques which minimize the adverse visual effects.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.080 "Revegetation" defined. (NRS 519A.160) "Revegetation" means the establishment of the pre-exploration or pre-mining vegetation or a comparable vegetative cover.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.085 "Small mining operation" defined. (NRS 519A.160) "Small mining operation" means a person who does not remove from the earth in any calendar year material in excess of 36,500 tons and who disturbs less than 5 acres of land in any calendar year. To determine the area of the surface disturbed, all land disturbed and left unreclaimed by an operator within a 1-mile radius of the center of the project must be considered.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.090 "Temporary closure" defined. (NRS 519A.160) "Temporary closure" means the cessation of an exploration project or mining operation for a period of not more than 3 years.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.095 "Topsoil" defined. (NRS 519A.160) "Topsoil" means the material at or near the surface of the earth which has been modified and acted upon by natural, physical, chemical or biological agents in a manner which will allow it to support revegetation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.100 Applicability: Land within exploration project or mining operation. (NRS 519A.160) NAC 519A.010 to 519A.415, inclusive, applies to affected land which is loca ted in exploration projects or mining operations which are active on or after October 1, 1990.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.105 Applicability: Road used for access to exploration project or mining operation. (NRS 519A.160) NAC 519A.010 to 519A.415, inclusive, does not apply to a road which an operator can prove to the satisfaction of the Division existed before January 1, 1981, if the road:

1. Is used for access to an exploration project or mining operation; and
2. Has not been altered other than maintenanc e activities and minor repairs since January 1, 1981.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.110 Effect of provisions on existing sureties and appro ved plans of reclamation; applicability to revisions to plans for reclamation. (NRS 519A.160)

1. NAC 519A.010 to 519A.415, inclusive, does not affect, alter or modify the t erms and conditions of any approved plan for reclamation or surety obtained from a federal land management agency before October 1, 1990, which is consistent with NAC 519A.010 to 519A.415, inclusive.
2. NAC 519A.010 to 519A.415, inclusive, applies to any revisions to a plan for reclamation submitted on or after October 1, 1990.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.115 Preliminary compliance with provisions. (NRS 519A.160) An operator who submits a complete application for a permit by April 1, 1993, and pays the applicable fees as required by NAC 519A.225 shall be deemed to be in compliance with NAC 519A.010 to 519A.415, inclusive, until the Division either issues a permit or denies the application.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

Permits and Fees

NAC 519A.120 Time when obtaining of permit and payment of fees r equired. (NRS 519A.160)

1. The operator of each exploration project o r mining operation which is active on October 1, 1990, shall obtain the permit required by NRS 519A.180 or 519A.200, as applicable, and pay the fees required by NAC 519A.225:

(a) On or before October 1, 1993; or

(b) Before abandonment of the exploration project or mining operation,

whichever occurs first.

2. The operator of each exploration project a nd mining operation which becomes active after October 1, 1990, shall obtain the permit required b y NRS 519A.180 or 519A.200, as applicable, and pay the fees required by NAC 519A.225 before engaging in exploration or mining.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.125 Permits for exploration projects: Application. (NRS 519A.160, 519A.190)

1. The operator of an exploration project shall apply to the Division for a permit.

2. The application must include:

(a) The applicant's name, address and telephone number;

(b) If the applicant is a corporation or other business entity which is required to have a registered agent, the name, address and telephone number of its registered agent and its principal officers or partners;

(c) A complete plan for reclamation;

(d) The estimate of the cost of executing the plan for reclamation required by NAC 519A.360;

(e) A statement that the applicant agrees to a ssume responsibility for the reclamation of any surface area affected by his or her exploration project;

(f) A map which depicts the area to be covered by the surety; and

(g) For the purpose of calculating the amount of the surety, the average number of drill holes to be left open at any one time during the life of the project.

3. The application must be accompanied by the fee charged by the Division for an application for the issuance of a permit required by NAC 519A.225.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A 9-5-91)

NAC 519A.130 Permits for exploration projects: Duration; limitation on issuance. (NRS 519A.160)

1. A permit for an exploration project is val id for the life of the project unless it is suspend ed or revoked by the Division.

2. If a permit for an exploration project is included in a permit for a mining operation, it is valid for the life of the operation.

3. A permit must not be issued to an operator who has an outstanding notice of noncompliance issued pursuant to NAC 519A.400.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.135 Interim permits for exploration projects: Prerequisites; effect; duration. (NRS 519A.160)

1. The Division may grant an interim permit f or an exploration project conducted on private land if:

(a) The operator requests the interim permit in writing;

(b) The project contains a disturbance on affe cted land which is greater than 5 acres but less than 20 acres within a 1-mile radius of the center of the project, including all lands, both public and private, associated with the project;

(c) The project employs best management practices during operation and reclamation to control erosion and minimize the transport and delivery of sediment to surface water, which must be the best management practices described in the *State of Nevada Handbook of Best Management Practices* or practices equivalent thereto;

(d) The operator files an application for a pe rmit with the Division, including the information required in subsection 2 of NAC 519A.125 before disturbing and not reclaiming 5 acres of land;

(e) The operator provides surety which is acceptable to the Division;

(f) The operator files the fee required by NAC 519A.225 and submits the statement required by paragraph (e) of subsection 2 of NAC 519A.125;

(g) The operator does not have an outstanding notice of noncompliance issued pursuant to NAC 519A.400; and

(h) The operator is not in violation of the provisions of:

(1) Chapter 519A of NRS;

(2) NAC 519A.010 to 519A.415, inclusive; or

(3) An approved plan for reclamation.

2. The Division may grant an interim permit for an exploration project conducted on public land administered by the Bureau of Land Management, the United States Forest Service or another federal land management agency if:

(a) The operator requests the interim permit in writing;

(b) The project contains a disturbance on affected land which is greater than 5 acres but less than 20 acres within a 1-mile radius of the center of the project, including all lands, both public and private, associated with the project;

(c) The operator submits to the Division a plan for reclamation approved by the applicable federal land management agency before disturbing and not reclaiming 5 acres of land;

(d) The operator demonstrates that a surety acceptable to the applicable federal agency has been filed;

(e) The operator files the fee required by NAC 519A.225 and submits the statement required by paragraph (e) of subsection 2 of NAC 519A.125;

(f) The operator does not have an outstanding notice of noncompliance issued pursuant to NAC 519A.400; and

(g) The operator is not in violation of the provisions of:

(1) Chapter 519A of NRS;

(2) NAC 519A.010 to 519A.415, inclusive; or

(3) An approved plan for reclamation.

3. An operator meeting the requirements of subsection 1 or 2 may proceed with the exploration project while the Division processes the application for a permit.

4. An interim permit granted pursuant to this section remains in effect until:

(a) A final permit is issued or denied; or

(b) The interim permit is revoked or suspended,

by the Division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R044-12, 9-14-2012)

NAC 519A.140 Permits for mining operations: Application. (NRS 519A.160, 519A.210)

1. The operator of a mining operation shall apply to the Division for a permit.

2. An application must include:

(a) The applicant's name, address and telephone number;

(b) If the applicant is a corporation or other business entity which is required to have a registered agent, the name, address and telephone number of its registered agent and its principal officers or partners;

(c) A complete plan for reclamation;

(d) The estimate of the cost of executing the plan for reclamation required by NAC 519A.360;

(e) A statement that the applicant agrees to assume responsibility for the reclamation of any surface area affected by his or her mining operation;

(f) A map which depicts the area to be covered by the surety;

(g) For the purpose of calculating the amount of the surety, the average number of drill holes to be left open at any one time during the life of the project; and

(h) The fee charged by the Division for an application for and the issuance of a permit required by NAC 519A.225.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A 9-5-91)

NAC 519A.145 Permits for mining operations: Duration; inclusion of exploration activities; limitation on issuance. (NRS 519A.160)

1. A permit issued for a mining operation is valid for the life of the operation unless it is suspended or revoked by the Division.

2. Upon request by the applicant, a permit for mining must include all exploration activities conducted within the project area.

3. A permit for mining must not be issued to an operator who has an outstanding notice of noncompliance issued pursuant to NAC 519A.400.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.150 Exploration projects and mining operations on public land. (NRS 519A.160, 519A.240) If an exploration project and mining operation take place on public lands administered by the Bureau of Land Management, the United States Forest Service or another federal land management agency:

1. A plan of operations which has been approved by the federal agency may be substituted for the application for a permit required by NAC 519A.125 or 519A.140 and if it is accompanied with a surety which is acceptable to the Division and includes a plan for reclamation of all affected land, it is deemed to be a complete application for a permit; and

2. Evidence of a surety filed with the federal agency may be substituted for the surety required by NAC 519A.350.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.155 Exploration projects and mining operations on both private and public land. (NRS 519A.160, 519A.240) If an exploration project and mining operation takes place on a site which includes privately owned land and public land administered by the Bureau of Land Management, the United States Forest Service or another federal land management agency:

1. A plan of operations which has been approved by the federal agency may be substituted for the application for a permit required by NAC 519A.125 or 519A.140 if the plan sets forth reclamation practices for both the public and privately owned lands;

2. The memorandum of understanding entered into by the Division and the federal agency must provide for the review by the Division of those portions of the plan of operations regarding privately owned land so that the Division can determine if they are consistent with the requirements of NAC 519A.010 to 519A.415, inclusive; and

3. Evidence of a surety approved by the federal agency may be substituted for the surety required by NAC 519A.350 if the surety is in an amount for the public and privately owned land which is acceptable to the Division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.160 Submission to Division of new or amended plan of operation. (NRS 519A.160, 519A.240) When an operator of an exploration project or mining operation submits a new or amended plan of operation to the federal agency, he or she shall file a copy with the Division to allow the Division to conduct its review concurrently with the federal agency.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.165 Review of application for permit; provision of additional information. (NRS 519A.160, 519A.190, 519A.210)

1. The Division shall review an application for a permit and notify the applicant if additional information is required within 15 days after the receipt of the application. The notice must state the additional information which is required.

2. If the applicant provides additional information to complete an application, the Division shall notify the applicant if more additional information is required within 15 days after receipt of the additional information. The notice must state the additional information which is required.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.170 Treatment of information as confidential. (NRS 519A.150, 519A.160)

1. An operator may request when the information is submitted that the information submitted to the Division with the request for a permit be treated as confidential. The Division shall consider a request only if the operator, when the information is submitted, stamps or writes "confidential business information" on each page.

2. The operator must show to the satisfaction of the Division that the information contained in the application for a permit is entitled to protection as a trade secret.

3. Except as otherwise provided in subsection 4, if the Division determines that the information is not entitled to protection as a trade secret it must not make the information public until the Division has:

(a) Notified the operator; and

(b) Allowed at least 10 working days after the notice has been sent for the informant to appeal the decision.

4. If the request is not made at the time the information is submitted, the Division may make the information available to the public without notice to the operator.

5. "Trade secret":

(a) Includes the location of exploration drillholes and a formula, pattern, compilation, program, device, method, technique or process that:

(1) Derives independent economic value, present or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and

(2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

(b) Does not include the name and address of the operator.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.175 Time for final denial or issuance of final permit; effective date of permit; notice of denial. (NRS 519A.160)

1. The Division shall issue a final permit to the applicant or a final decision to deny a permit within 15 days after:

(a) If a public hearing is required, the close of the period for submitting comments and information prescribed in NAC 519A.185 to 519A.210, inclusive; or

(b) If a public hearing is not required and the application is complete, the receipt of an application for a permit and the required fees.

2. A permit issued by the Division becomes effective upon the receipt by the Division of the surety required by NAC 519A.350.

3. If the application for a permit is denied, the Division must notify the applicant of:

(a) The reasons for denial; and

(b) The time within which an appeal must be brought and procedures for appealing the decision pursuant to NAC 519A.415.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.180 Time for issuance of draft of permit or notice of intent to deny application; extension of time for review of application. (NRS 519A.160)

1. The Division shall prepare and issue a draft of a permit or notice of intent to deny the application for a permit, the grounds for the denial, if applicable, and the public notice pursuant to NAC 519A.185, if applicable, within:

(a) Fifteen days after it completes its review of a complete application for an exploration project or mining operation on federal land;

(b) Thirty days after it completes its review of a complete application for an exploration project on private land; and

(c) Sixty days after it completes its review of a complete application for a mining operation on private land.

2. If the Division determines that an application for a permit does not comply with the requirements of NAC 519A.010 to 519A.415, inclusive, the application will be denied unless the operator requests that the time for the Division to review a complete application set forth in paragraphs (a), (b) and (c) of subsection 1 be extended for the amount of time necessary for the applicant to submit additional documentation and information.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.185 Provision of notice of intent to issue draft of pemit or to deny application. (NRS 519A.160)

1. Except as otherwise provided in subsection 3, the Division shall, at least 30 days before the issuance of a draft permit or a notice of intent to deny the application for a permit for an exploration project or mining operation to be conducted on privately owned land:

(a) Circulate a public notice of the intent to issue a draft permit or deny the application in a manner intended to inform interested persons;

(b) Cause to be published in a newspaper of general circulation within the geographic area of a proposed exploration project or mining operation, a notice of the intent to issue the permit or deny the application; and

(c) Mail to the operator, landowner of record who is identified by the applicant in the application, members of the board of county commissioners of the county in which the project or operation is to be located, Division of Minerals of the Commission on Mineral Resources and any other person or group who so requests, written notice of the intent to issue a draft permit or deny the application.

2. Notice given pursuant to subsection 1 must include:

(a) The name, address and telephone number of the Division;

(b) The name and address of the operator;

(c) The location of the proposed project or operation;

(d) The tentative decision of the Division to issue a draft permit or deny the application for a permit;

(e) A description of the procedure which the Division will use to make a final decision to issue or deny the permit;

(f) The location where interested persons may obtain further information or inspect and copy the draft of the permit and other relevant forms and documents; and

(g) A statement that interested persons must submit to the Division written comments and information on the tentative decision of the Division within 30 days after the date on which the notice is published.

3. An application for a permit which has been submitted pursuant to NAC 519A.150 or 519A.155 is not subject to the notice requirements of NAC 519A.185 to 519A.210, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R080-08, 12-17-2008)

NAC 519A.190 Submission of comments and information concerning draft of permit; request for public hearing. (NRS 519A.150, 519A.160)

1. Within 30 days after notice is published pursuant to NAC 519A.185:

(a) Any person may submit written comments andinformation regarding the draft of the permit to the Division.

(b) The operator or any person who is directly affected by the application for a permit may request in writing a public hearing on any application for a permit. The request must state the reason for the request and the issues to be raised at the hearing.

2. Upon the receipt of written comments or information, the Division shall send a copy of the comments or information to the applicant.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.195 Prerequisites for scheduling public hearing on application for permit. (NRS 519A.150, 519A.160) The Division shall schedule a public hearing on an application for a permit if:

1. A person who is directly affected by the application for a permit requests the hearing and the Division determines that the request is reasonable and there is a significant degree of public interest in the matter; or

2. The Division deems it necessary.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.200 Notice of public hearing. (NRS 519A.150, 519A.160)

1. The Division shall cause to be published a notice for a hearing at least 30 days before the hearing in the manner prescribed by NAC 519A.185.

2. In addition to the information required by NAC 519A.185, the notice must include:

(a) The date on which the public notice required by NAC 519A.185 was given concerning the permit;

(b) The date, time and place of the hearing; and

(c) A brief description of the nature and purpose of the hearing and the applicable rules and procedures for the hearing.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.205 Submission of comments and information at public hearing; provision of records to operator. (NRS 519A.150, 519A.160)

1. Any person may submit to the Division at a public hearing on the application for a permit held by the Division an oral or written statement or other information which relates to the draft of the permit.

2. The Division shall, if appropriate:

(a) Set reasonable limits upon the time allowed for oral statements;

(b) Require persons submitting oral statements to submit the statements in writing; and

(c) Extend the period allowed for the submission of comments and information by interested persons to the close of the hearing.

3. Upon the request of the operator, the Division shall provide the operator with copies of all comments made and information submitted before and during the hearing.

4. If the operator desires a verbatim record of the hearing, he or she must bear the cost of making such a record.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.210 Statement by Division responding to public comments. (NRS 519A.160)

1. If the Division issues a final permit, it shall, if applicable, issue at the same time a statement responding to the comments received on the matter.

2. A copy of the statement must be sent to the operator and all persons submitting comments or information and will be made available for inspection by the public.

3. The statement must:

(a) Set forth the provisions, if any, in the draft permit that have been changed in the final permit, and the reasons for the change;

(b) Briefly describe and respond to all significant comments and information submitted; and

(c) State that any person aggrieved by the Division's decision may appeal the decision pursuant to NAC 519A.415.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.215 Transfer of permit to new operator. (NRS 519A.160, 519A.240)

1. The Division shall transfer a permit to a new operator if the new operator submits to the Division:

(a) A written request to transfer the permit, which must include, with respect to the parent corporation, subsidiary corporation or other company receiving the permit as a result of the transfer:

(1) A statement that the corporation or company agrees to assume responsibility for the reclamation of any affected land which is the subject of the existing permit;

(2) A statement explaining the corporate structure of the corporation or company;

(3) A copy of the state business license of the corporation or company; and

(4) A copy of the certificate of registration of the corporation or company which is filed with the Secretary of State;

(b) If the exploration project or mining operation is on privately owned land, a surety to ensure that reclamation will be completed;

(c) If the exploration project or mining operation is on public land administered by the Bureau of Land Management, the United States Forest Service or another federal land management agency, evidence that a surety acceptable to that agency has been filed; and

(d) If the exploration project or mining opera tion is on privately owned and public land administered by the Bureau of Land Management, the United States Forest Service or another federal land management agency either:

(1) Evidence that a surety acceptable to the federal agency has been filed with the agency which covers reclamation of all disturbed land, including privately owned and public land; or

(2) A surety to cover:

(I) The cost of reclamation on privately owned land, in a form and amount acceptable to the Division; and

(II) Evidence that a surety acceptab le to the Bureau of Land Management, the United States Forest Service or another federal land manag ement agency has been filed with the agency for reclamation of land.

2. The Division shall transfer a permit to a new operator within 30 days after it receives the information and documentation required by subsection 1 unless the current operator requests that the transfer be made on a later date.

3. The Division shall not transfer a permit t o an operator who is in violation of any provision of:

(a) NAC 519A.010 to 519A.415, inclusive;

(b) Chapter 519A of NRS; or

(c) An approved plan for reclamation,

and to whom a notice of noncompliance has been ser ved and remains outstanding pursuant to NAC 519A.400.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R044-12, 9-14-2012)

NAC 519A.220 Suspension or revocation of permit. (NRS 519A.150, 519A.160) If the Division suspends or revokes a permit for noncompliance with the provisions of:

1. NAC 519A.010 to 519A.415, inclusive;
2. Chapter 519A of NRS; or
3. An approved plan for reclamation,

the revocation or suspension is effective not later than 30 days after the operator is sent written notice by the Division setting forth the facts or conduct warranting the revocation or suspension.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.225 Fees for application for permit. (NRS 519A.160)

1. An applicant for a permit for an explorati on project shall submit to the Division an application fee of:

(a) One dollar and fifty cents for each acre of affected and unreclaimed public land included in the plan for reclamation; and

(b) Two dollars and fifty cents for each acre of affected and unreclaimed privately owned land included in the plan for reclamation.

2. An applicant for a permit for a mining operation shall submit to the Division an application fee of:

(a) One dollar and fifty cents for each acre of affected and unreclaimed public land administered by a federal land management agency and included in the plan for reclamation; and

(b) Two dollars and fifty cents for each acre of affected and unreclaimed privately owned land included in the plan for reclamation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.227 Fee for modification to permit. (NRS 519A.160)

1. The fee for a minor modification to a permit for an exploration project or a permit for a mining operation is $500 plus $20 per acre or part of an acre, not to exceed one-half the annual fee assessed pursuant to NAC 519A.230 and 519A.235.

2. The fee for a major modification to a permit for an exploration project or a permit for a mining operation is equal to the amount of the applicable annual fee assessed pursuant to NAC 519A.230 and 519A.235.

3. For a modification that does not constitute a major modification or a minor modification and involves a disturbance of 10 acres or less, a transfer of the permit or a change to the schedule for completion of reclamation, the fee is the lesser of $250 or one-half the annual fee assessed pursuant to NAC 519A.230 and 519A.235.

4. Fees paid pursuant to this section are nonrefundable.

(Added to NAC by Environmental Comm'n by R020-02, eff. 4-5-2002; A by R097-05, 10-31-2005)

NAC 519A.230 Submission of fee if permit not issued. (NRS 519A.160) If a permit is not issued by April 15, 1991, the operator of an exploration project or mining operation that is active on October 1, 1990, shall submit to the Division the fee set forth in NAC 519A.235.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.235 Annual submission of fees for services by Division. (NRS 519A.160)

1. On or before April 15, 1991, and on or before April 15 of each year thereafter, an operator of an exploration project or a mining operation shall submit to the Division for services rendered by the Division the applicable fees required by this section.

2. For each exploration project which is active on October 1, 1990, and for which a permit has been issued by the Division or an application for a permit has been submitted to the Division, the operator shall submit to the Division:

(a) If the total affected area is 20 acres or less, a fee of $100.

(b) If the total affected area is more than 20 acres but not more than 100 acres, a fee of $500.

(c) If the total affected area is more than 100 acres but not more than 500 acres, a fee of $1,000.

(d) If the total affected area is more than 500 acres, a fee of $2,000.

3. For each mining operation which is active on October 1, 1990, and for which a permit has been issued by the Division or an application for a permit has been submitted to the Division, the operator shall submit to the Division:

(a) If the total affected area is 50 acres or less, a fee of $500.

(b) If the total affected area is more than 50 acres but not more than 200 acres, a fee of $1,500.

(c) If the total affected area is more than 200 acres but not more than 500 acres, a fee of $3,000.

(d) If the total affected area is more than 500 acres but not more than 1,000 acres, a fee of $4,500.

(e) If the total affected area is more than 1,000 acres but not more than 2,500 acres, a fee of $9,000.

(f) If the total affected area is more than 2,500 acres but not more than 5,000 acres, a fee of $12,000.

(g) If the total affected area is more than 5,000 acres, a fee of $16,000.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R020-02, 4-5-2002)

NAC 519A.240 Time for submission of fees for new exploration pro jects and mining operations. (NRS 519A.160) For new exploration projects or new mining operations, the fees set forth in NAC 519A.235, as applicable, must be submitted to the Division by the operator on April 15 of each year following issuance of the permit for the exploration project or mining operation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

Reclamation of Land

NAC 519A.245 Circumstances under which reclamation is required. (NRS 519A.160) Reclamation of affected land which was disturbed:

1. On or after January 1, 1981, and before October 1, 1990, must be required as part of a permit if the land was disturbed by the current operator. The standards for reclamation required by the Bureau of Land Management, the United States Forest Service or another federal land management agency at the time the disturbance was created apply to federal and privately owned land.
2. Before January 1, 1981, is not required.
3. By someone other than the current operatormust not be required, unless the current operator is using the affected land in an active project or operation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.250 Exemption of open pits and rock faces from requirem ents. (NRS 519A.160, 519A.230)

1. An operator may request in writing that the Division grant an exception to the requirements for reclamation for open pits and rock faces which may not be feasible to reclaim.
2. If the operator proves to the satisfaction of the Division that reclamation is not feasible, the Division shall exempt an open pit or rock face from the requirements for reclamation of NAC 519A.010 to 519A.415, inclusive.
3. The Division shall base its determination of the feasibility of reclaiming open pits and rock faces on the technological and economic practicabil ity of achieving a safe and stable condition suitable for a productive postmining land use. The Division shall consider, without limitation, the:

(a) Topography of the site;

(b) Geology and stability of the site;

(c) Time required to complete reclamation;

(d) Consumption of resources required to complete reclamation;

(e) Potential adverse environmental impacts to the quality of the air and water associated with the activities for reclamation; and

(f) Future access to mineral resources.

4. Upon request by the applicant, the return of material to the open pit from which it was extracted shall be considered to be not feasible for the purposes of reclamation.
5. If an open pit or rock face is exempted from reclamation, public safety must be provided for by means other than reclamation, including, but not limited to, restrictions on access to the site or restrictions on the deed to the property.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.255 Reclamation not required beyond that approved by federal agency. (NRS 519A.160, 519A.240) If an operator can establish to the satisfaction of the Division that reclamation was approved by the Bureau of Land Mana gement, the United States Forest Service or another federal land management agency, further reclamation is not required on affected land.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.260 Considerations in preparing plan for reclamation. (NRS 519A.160, 519A.230) When preparing his or her plan for reclamation an applicant must consider:

1. The pre-mining and postmining use of the land;
2. The technical and economic practicability of the proposed techniques for reclamation;
3. The effectiveness of the proposed activities for reclamation in ensuring public safety;
4. The annual precipitation of the area and i ts effect on revegetation and the potential for erosion;
5. The existing and proposed postmining topography in relation to the potential for erosion;
6. The potential for degradation of surface-w ater or groundwater quality resulting from the proposed activities for reclamation;
7. The visual impact of the reclamation;
8. Any other criteria which may affect the applicability of a particular activity for reclamation, including types of soil and the physical and chemical characteristic of the soil; and
9. Whether the disturbance was created before or after September 19, 1990.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.265 Contents of plan for reclamation for exploration project. (NRS 519A.160, 519A.230) A plan for reclamation for an exploration project must include:

1. A topographic map or sketch in sufficient detail to allow the Division to locate the area to be explored and determine the potential for adverseeffects on surface water which may result from the exploration activities.
2. A description of any land within the project area which was affected by:

(a) A project conducted by a previous operator and which is inactive on the date on which the application for a permit for an exploration project is filed;

(b) The current operator before January 1, 198 1, and is inactive on the date on which the application for a permit for an exploration project is filed;

(c) The current operator before January 1, 198 1, and is active on the date on which the application for a permit for an exploration project is filed;

(d) The current operator on or after January 1 , 1981, but before October 1, 1990, and which is inactive on the date on which the application for a permit for an exploration project is filed; and

(e) The current operator on or after January 1 , 1981, but before October 1, 1990, and which is active on the date on which the application for a permit for an exploration project is filed.

3. A description of any land within the project area:

(a) On which the operation is active on or after October 1, 1990; and

(b) Comprising access roads which were created before January 1, 1981.

4. A description of the techniques for prospecting and excavation to be used which will affect the surface.
5. The proposed location and approximate length and width of access roads.
6. A description of the best management practices employed during operation and reclamation to control erosion and minimize the transport and d elivery of sediment to surface water, which must be the best management practices described in the *State of Nevada Handbook of Best Management Practices* or practices equivalent thereto.
7. The estimated amount of acreage that will be disturbed by the project.
8. The anticipated schedule for the project and for reclamation.

9. The proposed use of the areas to be affected if different from the pre-exploration use.

10. The activities for reclamation to be undertaken during and upon completion of the project.

11. The proposed methods to monitor and control noxious weeds as described in NAC 555.010 during reclamation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R044-12, 9-14-2012)

NAC 519A.270 Contents of plan for reclamation for mining operati on. (NRS 519A.160, 519A.230) The plan for reclamation for a mining operation must include:

1. A topographic map of the area of the operation depicting:

(a) The boundaries of the area of the operation;

(b) Surface ownership of the land within the area of the operation;

(c) The areas to be affected in sufficient detail so that they can be located from the ground;

(d) The kind of disturbances, including:

(1) Tailings impoundments;

(2) Leach pads;

(3) Waste rock dumps;

(4) Buildings;

(5) Roads; and

(6) All other surface facilities; and

(e) A description of the land within the area of operation which was affected by:

(1) An operation conducted by a previous operator and which is inactive on the date on which the application for a permit for an operation is filed;

(2) The current operator before January 1, 1981, and which is inactive on the date on which the application for a permit for an operation is filed;

(3) The current operator before January 1 , 1981, and which is active on the date on which the application for a permit for an operation is filed;

(4) The current operator on or after January 1, 1981, but before October 1, 1990, and which is inactive on the date on which the application for a permit for an operation is filed; and

(5) The current operator on or after January 1, 1981, but before October 1, 1990, and which is active on the date on which the application for a permit for an operation is filed.

2. A description of any land within the area of operation:

(a) On which the operation is active on or after October 1, 1990; and

(b) Comprising access roads which were created before January 1, 1981.

3. The location of any surface water body within one-half-mile down gradient of the operation which may be impacted by excess sedimentation resulting from the mining operations.

4. An estimate of the number of acres affected by each type of disturbance.

5. A proposed productive postmining use of the land.

6. A proposed schedule of the time for initiation and completion of activities for reclamation.

7. The proposed postmining topography.

8. The technical criteria used to determine t he final gradient and stability of slopes created o r affected by the mining operation.

9. The proposed methods to be used in reclaiming impoundments used during the operation.

10. A statement of any constraints on the est imated time to complete reclamation caused by the residual moisture content or physical or chemical qualities of impoundments.

11. The kinds of access roads and their estimated width and length which will be built and the manner in which they will be reclaimed.

12. A description of the best management practices employed during operation and reclamation to control erosion and minimize the transport and delivery of sediment to surface water, which must be the best management practices described in the *State of Nevada Handbook of Best Management Practices* or practices equivalent thereto.

13. The proposed revegetation of the land for its postmining land use, including:

(a) A plan for the management of topsoil and growth medium;

(b) A list of each species of vegetation;

(c) The rate of seeding of vegetation;

(d) The type of fertilizer and mulch to be used;

(e) When the planting will occur; and

(f) The proposed methods to monitor and control noxious weeds as described in NAC 555.010 during reclamation.

14. The proposed disposition of:

(a) Buildings;

(b) Equipment;

(c) Piping;

(d) Scrap;

(e) Reagents; and

(f) Any other equipment and materials.

15. A description of any surface facilities such as buildings or roads which will not be reclaimed.

16. A description of any necessary monitoring and maintenance of fences, signs and other structures which will be performed by the operator on the reclaimed land.

17. A description of any reclamation which is necessary because of instream mining.

18. A description of any necessary stabilization, management, control or treatment of mine-impacted waters.

19. A statement of the effect that the proposed reclamation will have on future mining in the area.

20. A statement setting forth the effect that the proposed reclamation will have on public safety.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R044-12, 9-14-2012; R052-15, 12-21-2015)

NAC 519A.275 Requirements for productive postmining use of land. (NRS 519A.160)

1. A productive postmining use of the land required to be submitted with a plan for reclamation need not provide a use of the land and degree of productivity which is identical with the use of the land before the mining began or the use of the adjacent land or the degree of use.

2. Land which is returned to its pre-mining use or reclaimed after mining or exploration to a level of productivity which is generally consistent with the pre-mining level of productivity or the level of productivity of the surrounding land shall be deemed to be a productive postmining use.

3. Land which is reclaimed to a degree of productivity which is less productive than its pre-mining use shall be deemed to be productive if the operator takes reasonable measures, including, but not limited to:

(a) Ensuring adequate fertilization of the soil;

(b) Ensuring the quantity and quality of the topsoil or growth medium; and

(c) Establishing a productive postmining use of the land within site-specific economic and technical constraints of the area.

4. Land subject to excessive erosion will not be deemed to be reclaimed to a productive postmining use unless excessive erosion existed before mining or exists on the adjacent land. Evidence of the excessive erosion must be provided by the operator to the Division.

5. If the operator is not the owner of the surface of the affected lands, the Division shall consider any comments received from the landowner pursuant to NAC 519A.190 and 519A.205 in making the final determination that the proposed plan forreclamation adequately provides for a productive postmining use of the land.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R080-08, 12-17-2008)

NAC 519A.280 Approval required of proposed postmining use of land. (NRS 519A.160) Notwithstanding any other provisions of NAC 519A.010 to 519A.415, inclusive, a proposed postmining use of land must be approved by:

1. If the land is subject to the jurisdiction of the Bureau of Land Management, the United States Forest Service or another federal land management agency, the federal land manager; or

2. If the land is privately owned and if required by law, a local governmental entity with the authority to approve the postmining use of private land within its jurisdiction.

(Added to NAC by Environmental Comm'n, eff. 9- 19-90; A by R080-08, 12-17-2008; R044-12, 9-14-2012)

NAC 519A.285 Time for initiation of reclamation; extension of time; completion of reclamation. (NRS 519A.160)

1. If affected land cannot practicably be reclaimed concurrently with an exploration project or mining operation, reclamation must be initiated:

(a) Within 2 years after completion or abandonment of the exploration project or mining operation;

(b) Within 3 years after a temporary closure of an exploration project or mining operation; or

(c) As required by the Bureau of Land Management, the United States Forest Service or another federal land management agency.

2. The Division may grant one or more extensions of the time when reclamation must begin if the operator of an exploration project or mining operation demonstrates that a reasonable likelihood exists that the project or operation will resume, based on a consideration of factors including, but not limited to:

(a) The presence of additional mineralization of the commodity being mined or other commodities in commerce;

(b) Historical fluctuations in the value of the commodity being mined or other commodities present if they can be mined using the same disturbances;

(c) The design life of any beneficiation process components existing at a mining operation; and

(d) If the closure was caused because of litigation.

Each extension is for a 3-year period.

3. Once initiated, final reclamation activities must be completed as set forth in an approved plan for reclamation, unless the exploration project or mining operation is reactivated.

4. As used in this section, "process component" has the meaning ascribed to it in NAC 445A.375.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.290 Departure from approved plan for reclamation. (NRS 519A.160, 519A.230)

1. An operator may not depart from an approve d plan for reclamation without a modification of the plan which is approved by the Division or ot her written approval from the Division except in the case of an emergency.

2. As used in this section, emergency means a situation in which compliance with a provision of an approved plan for reclamation may result in b odily injury or in environmental damage not anticipated in the plan.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.295 Procedure for operator to modify plan for reclamati on. (NRS 519A.160, 519A.230)

1. An operator may request a modification to a plan for reclamation:

(a) By submitting to the Division a written re quest and those portions of the application for a permit which are applicable to the requested modifi cation, including, a revision to the calculated cost of executing the plan for reclamation and the amount of surety, if applicable; and

(b) For any reason, including:

(1) A proposed change in the postmining land use;

(2) The addition of a new disturbance to the affected land; and

(3) Proposed changes to the methods and techniques which will be used for reclamation.

2. The Division shall review a request for a major modification to a plan for reclamation or a minor modification to a plan for reclamation of a m ining operation and notify the applicant if additional information is required within 15 days a fter the receipt of the request. The notice must state the information which is required.

3. If the applicant provides additional infor mation to complete a request, the Division shall notify the applicant if more additional information is required within 15 days after receipt of the additional information. The notice must state the additional information which is required.

4. The Division shall issue a notice of inten t to allow or deny the request within 15 days after the later of:

(a) The close of the period for public comment provided in NAC 519A.190; or

(b) The receipt of the request for modification and the corresponding fees.

5. If the request for a modification is denied, the Division shall notify the applicant of:

(a) The reasons for denial; and

(b) The time allowed and procedures for appealing the decision pursuant to NAC 519A.415.

6. A request for a minor modification to a pl an for reclamation of an exploration project shall be approved or denied, and the reason for denial gi ven, within 10 days after the request for modification is submitted.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.300 Modification by Division of plan for reclamation. (NRS 519A.150, 519A.160)

1. The Division, on its own motion, may modify an approved plan for reclamation if:

(a) A provision of the plan is in conflict with the provisions of a specific statute;

(b) It becomes impossible or impracticable to comply with any provision of the plan; or

(c) A significant problem is discovered to exi st which results or may result from compliance with any provision of the plan.

2. If the Division, on its own motion, modifies a plan it:

(a) Shall notify the operator in a manner which allows the operator sufficient time to appeal the modification; and

(b) State the time allowed for an appeal of the decision in the modified plan.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.305 Requirements for notice and public comment before modifying plan for reclamation. (NRS 519A.150, 519A.160)

1. The Division shall, at least 30 days before making a major modification to a plan for reclamation of a mining operation:

(a) Circulate a public notice of the intent to modify the plan in a manner intended to inform interested persons;

(b) Cause to be published in a newspaper of general circulation within the geographic area of an exploration project or mining operation, a notice of the intent to modify the plan; and

(c) Mail to the operator, the landowner, members of the board of county commissioners of the county in which the project or operation is located, the Division of Minerals of the Commission on Mineral Resources and any other person who so requests, written notice of the intent to modify the plan.

2. Notice given pursuant to subsection 1 must include:

(a) The name, address and telephone number of the Division;

(b) The name and address of the operator;

(c) The location of the project or operation;

(d) A description of the procedure which the Division will use to make a final decision to modify a plan;

(e) The specific location where interested persons may obtain further information or inspect and copy relevant forms and documents; and

(f) A statement that interested persons must submit to the Division written comments on the tentative decision of the Division within 30 days after the date on which the notice is published.

3. The Division:

(a) Shall allow written comments and information and a public hearing as provided in NAC 519A.185 to 519A.210, inclusive, before making a major modification to a plan for reclamation.

(b) Is not required to allow written comments and a public hearing as provided in NAC 519A.185 to 519A.210, inclusive, before making a minor modification to a plan for reclamation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R097-05, 10-31-2005)

NAC 519A.310 Approval of modification to approved plan for reclamation of public land. (NRS 519A.160) A modification to an approved plan for reclamation of public land which is managed by a federal land management agency must be:

1. Approved by the federal agency; and

2. Approved by the Division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.315 Manner for abandonment of site; selection of appropriate activities for reclamation of site. (NRS 519A.160, 519A.230)

1. The abandonment of a site must be conducted in a manner which ensures public safety, encourages techniques to minimize adverse visual effects and establishes a safe and stable condition suitable for the productive postmining use of the land.

2. In selecting appropriate activities for reclamation for a particular site, techniques which minimize adverse visual impact must be considered.

3. As used in this section, "ensures public safety" includes minimizing hazards in areas to which the public may have legal access by, if applicable:

(a) Removing or burying structures, equipment, reagents or scrap;

(b) Sealing or securing shafts, tunnels and adits pursuant to NAC 513.390;

(c) Plugging drill holes;

(d) Leaving slopes in a structurally stable condition; and

(e) Restricting access to areas which cannot practicably be made safe.

4. As used in this section, "stable condition" means a condition that is resistant to excessive erosion and is structurally competent to withstand normal geologic and climatic conditions without significant failure that would be a threat to public safety and the environment.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.320 Notification by operator of completion, abandonment or suspension of work on exploration project or mining operation. (NRS 519A.160)

1. An operator shall notify the Division in writing within 90 days after an exploration project or mining operation is completed or abandoned. The notice must state the date on which the activities for reclamation included in the approved plan for reclamation will begin.

2. Except as otherwise provided in subsection 3, the operator shall notify the Division in writing within 90 days after work is suspended on an exploration project or mining operation for more than 120 days. The notice must state:

(a) The nature and reason for the suspension;

(b) The anticipated duration of the suspension; and

(c) Any event which would reasonably be expected to result in either the resumption of activities or the abandonment of the project or operation.

3. A temporary closure caused by weather conditions does not require notice pursuant to subsection 2.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.325 Removal and stockpiling of topsoil; avoidance of depression in land. (NRS 519A.160, 519A.230)

1. If practicable and necessary for the establishment of the postmining use of the land, sufficient topsoil, if available, must be removed during the creation of a disturbance and stockpiled for use in future reclamation. The stockpile must be posted to identify the material, and stabilized as necessary to prevent excessive losses from erosion. If topsoil is unavailable, any growth medium to be used that requires removal and stockpiling must be managed in the same manner as topsoil.

2. The creation of a depression during reclamation which may form a pond must be avoided unless the pond is part of the postmining use of the land.

3. As used in this section, "stabilized" means the condition which results when an area which has been reclaimed no longer exhibits a potential to impact adversely public safety or the environment.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.330 Revegetation of land. (NRS 519A.160, 519A.230)

1. An operator shall:

(a) Select and establish species of plants that will result in vegetation productivity comparable to that growing on the affected lands before commencement of the exploration project or mining operation, which is required by the manager of the land or which is consistent with the postmining use of the land.

(b) Consult a person with experience in revegetation or test the land before the selection of plants.

2. The operator may rely upon available technical data and the results of field tests when selecting seeding practices and soil amendments which will result in viable vegetation. These practices of selection may be included in the plan for reclamation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.335 Authority of Division to approve appropriate methods of reclamation. (NRS 519A.140, 519A.160) The Division may approve any appropriate method of reclamation for exploration projects and mining operations if the method is consistent with the provisions of NAC 519A.010 to 519A.415, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.340 Authority of Division to request operator of exploration project to perform certain types of reclamation. (NRS 519A.140, 519A.160) The Division may, if appropriate, request an operator of an exploration project to reclaim:

1. Roads and drill pads by:

(a) Recontouring or regrading to round off, cut and fill slopes;

(b) Removing culverts;

(c) Ripping or scarifying the surface;

(d) Constructing water bars;

(e) Revegetation; and

(f) Restoring or stabilizing drainage areas and streambeds.

2. Drill holes from exploration by plugging the holes with the minimum surface plug required pursuant to chapter 534 of NRS.

3. Trenches and pits by:

(a) Backfilling and regrading to approximate the form of the land before it was disturbed;

(b) Regrading to make the land stable; and

(c) Revegetation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A 9-5-91)

NAC 519A.345 Authority of Division to require operator of mining operation to perform certain types of reclamation. (NRS 519A.140, 519A.160) The Division may, if appropriate, require an operator of a mining operation to reclaim:

1. Roads and drill pads by:

(a) Recontouring or regrading to round off, cut and fill slopes to the original contour or to approximate the form of the land before its disturbance;

(b) Removing culverts;

(c) Ripping or scarifying the surface;

(d) Constructing water bars;

(e) Revegetation; and

(f) Restoring or stabilizing drainage areas or streambeds.

2. Drill holes from exploration by plugging the holes with the minimum surface plug required pursuant to chapter 534 of NRS.

3. Waste and development rock piles by:

(a) Regrading to round off sharp edges, enhanc e the stability, reduce susceptibility to erosion and facilitate efforts for revegetation;

(b) Revegetation;

(c) Diverting runon; and

(d) Implementing measures to stabilize, manage, control or treat mine-impacted waters.

4. Dams for tailings ponds by:

(a) Covering with waste rock, topsoil or growth medium;

(b) Revegetation; and

(c) Rendering the dam incapable of storing any mobile fluid in a quantity which could pose a threat to the stability of the dam or to public safety.

5. Impoundments for tailings by:

(a) Regrading to promote runoff and reduce infiltration;

(b) Covering with waste rock, topsoil or growth medium;

(c) Revegetation;

(d) Process fluid stabilization; and

(e) Diverting runon.

6. Heaps from leaching by:

(a) Regrading to enhance structural stability, promote runoff, reduce infiltration and control erosion;

(b) Covering with waste rock, topsoil or growth medium;

(c) Revegetation;

(d) Process fluid stabilization; and

(e) Diverting runon.

7. Solution ponds, settling ponds and other nontailings impoundments by:

(a) Backfilling and regrading to approximate the natural land form; and

(b) Restoring the regime of the surface water to the regime that existed before the disturbance.

8. Buildings, foundations, facilities, structures and other equipment by:

(a) Demolishing to the level of the foundation and burying the demolished items on the site in conformance with applicable requirements for the disposal of solid waste;

(b) Salvaging and sale;

(c) Disposal off of the site in conformance wi th applicable requirements for the disposal of solid waste; and

(d) Continuing use in a manner consistent with the postmining land use.

9. Open pit mines by:

(a) Performing activities that will provide for public safety;

(b) Stabilizing pit walls or rock faces where required for public safety;

(c) Constructing and maintaining berms, fences or other means of restricting access;

(d) Implementing measures to stabilize, manage, control or treat mine-impacted waters;

(e) Creating a lake for recreational use, wildlife or other uses; and

(f) Revegetation.

Reclamation of open pits or rock faces does not require backfilling although backfilling in whole or in part with waste rock from an adjacent mining operation may be encouraged if backfilling is feasible and does not create additional negative environmental impacts.

10. Underground mines by:

(a) Sealing shafts, adits, portals and tunnels to prevent access;

(b) Constructing and maintaining berms, fences or other means of restricting access; and

(c) Implementing measures to stabilize, manage, control or treat mine-impacted waters.

(Added to NAC by Environmental Comm'n, eff. 9- 19-90; A 9-5-91; R090-00, 7-27-2000; R052-15, 12-21-2015)

Provision of Surety

NAC 519A.350 General requirements. (NRS 519A.160, 519A.190, 519A.210)

1. An operator shall file a surety with the D ivision or a federal land management agency, as applicable, to ensure that reclamation will be completed on privately owned and federal land. The surety may be:

(a) A trust fund;

(b) A bond;

(c) An irrevocable letter of credit;

(d) Insurance;

(e) A corporate guarantee;

(f) A cash deposit; or

(g) Any combination thereof.

2. If the surety is a trust fund:

(a) The operator shall make periodic payments to the trust fund at least annually for the term of the exploration project or mining operation.

(b) The initial payment to the trust must be:

(1) For a new exploration project or mining operation, made before the land is affected.

(2) For an exploration project or mining operation which is active on October 1, 1990, made within 60 days after the operator receives a permit from the Division.

(c) The balance of the trust fund must be suff icient at all times to satisfy the requirements of NAC 519A.360.

3. If the surety is the bond of a corporation:

(a) It must state that the operator shall fait hfully perform all requirements of the permit issue d by the Division.

(b) The corporation must be licensed to do business in the State of Nevada.

4. The operator may provide evidence of a sur ety provided by the program for the pooling of reclamation performance bonds developed by the Divi sion of Minerals of the Commission on Mineral Resources pursuant to NRS 519A.290.

5. If the surety is an irrevocable letter of credit, the letter of credit must:

(a) Be executed and issued by a bank authorize d and doing business in the State of Nevada or a correspondent bank which is authorized to do business in the State of Nevada.

(b) Be made at the request of the operator.

(c) State that the issuing bank will honor drafts for payment upon compliance with the terms of the credit.

(d) Be irrevocable and issued for at least 1 year.

The operator shall notify the Division at least 60days before the expiration of the letter of credit The notice must state whether it will be renewed or replaced with another form of surety.

6. If the surety is insurance:

(a) The policy must guarantee the performance of each reclamation obligation and permitting requirement of the operator if the operator defaults on any such obligation or requirement.

(b) The insurance company issuing the policy must be authorized to conduct the business of insurance in the State of Nevada.

(c) The insurance company issuing the policy must have a superior financial strength rating and a superior credit rating as determined by A.M. Best Company of Oldwick, New Jersey, or equivalent ratings from a nationally recognized insurance rating service.

(d) The policy must provide for a financial guarantee which satisfies the requirements of NAC 519A.360 and which is available at all times if the operator defaults on any reclamation obligation or permitting requirement.

7. If the surety is a corporate guarantee:

(a) Not more than 75 percent of the required surety may be satisfied by the corporate guarantee, which is subject to periodic review and approval by the Administrator of the Division. The remaining portion of the surety must be satisfied by a surety identified in this section.

(b) The audited financial statements of the corporation must indicate that the corporation has two of the following three ratios:

(1) A ratio of total liabilities to stockholder's equity less than 2 to 1.

(2) A ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1 to 1.

(3) A ratio of current assets to current liabilities greater than 1.5 to 1.

(c) The net working capital and tangible net worth each must equal or exceed the amount established for reclamation pursuant to NAC 519A.360.

(d) The tangible net worth must be at least $10,000,000.

(e) Ninety percent of the assets of the corporation must be:

(1) Located in the United States; or

(2) At least six times the amount established pursuant to NAC 519A.360.

8. If the surety is a cash deposit:

(a) The deposit must be deposited with and held in trust by the State Treasurer. Any interest earned on the deposit must be credited to the trust. The State Treasurer may release the deposit either in whole or in part to the operator or the Division only upon receipt of a written request from the Administrator or his or her designee.

(b) The deposit must be sufficient to satisfy the requirements of NAC 519A.360 and the Division shall determine the portion of the deposit to be allocated as the surety for each individual exploration project or mining operation.

9. Any financial information submitted to the Division pursuant to this section must be prepared in accordance with accounting principles that are generally accepted in the United States.

(Added to NAC by Environmental Comm'n, eff. 9- 19-90; A by R089-01, 10-25-2001; R080-08, 12-17-2008; R044-12, 9-14-2012; R052-15, 12-21-2015)

NAC 519A.355 Provision of statewide surety for exploration projects. (NRS 519A.160, 519A.190) The applicant for a permit for an exploration project may provide a statewide surety for all projects conducted within the State of Nevada.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.360 Amount of surety required. (NRS 519A.160, 519A.190, 519A.210)

1. The operator shall provide surety in an amount sufficient to ensure reclamation of:

(a) The entire area to be affected by his or her project or operation; or

(b) A portion of the area to be affected if, as a condition of the issuance of the permit, filing additional surety is required before the operator disturbs land not covered by the initial surety.

2. The amount of surety required must be based on an estimate of the cost of executing the plan for reclamation which would be incurred by the state or federal agency having jurisdiction over the land.

3. The operator's estimate of the cost for reclamation must be based on either:

(a) The costs of equipment rental, operation and labor which are appropriate for the geographic area undergoing reclamation and which would otherwise be incurred by a third-party contractor who performed the reclamation;

(b) Estimated costs provided by an outside contractor; or

(c) Any other method which is acceptable to the Administrator, the Bureau of Land Management, the United States Forest Service or another federal land management agency, if applicable.

4. In determining the cost of executing the plan for reclamation, the operator shall consider all activities in the plan for reclamation that are required by NAC 519A.010 to 519A.415, inclusive, or chapter 519A of NRS, including, if appropriate:

(a) Earth moving, regrading, stabilization of heaps and dumps, recontouring of roads and erosion control;

(b) Process fluid stabilization;

(c) Stabilization, management, control and treatment of mine-impacted waters;

(d) Revegetation, preparation of seedbed and planting;

(e) Demolition of buildings and other structures;

(f) Removal and disposal or salvage of buildings, structures, equipment, piping, scrap and reagents;

(g) Any ongoing or long-term activities which are required to:

(1) Maintain the effectiveness of reclamation or are necessary in lieu of reclamation; or

(2) Ensure the continuation of post-reclamation stabilization, management, control and treatment of mine-impacted waters to protect the waters of this State,

including, without limitation, periodic clean-out of sediment basins and ponds used to collect mine-impacted waters or maintenance of berms and fences which are used to prevent access to areas which pose a threat to the public safety;

(h) Equipment mobilization and demobilization; and

(i) Administration and management by the Division, the Bureau of Land Management, the United States Forest Service and another federal land management agency, if applicable.

5. In determining the cost of executing the plan for reclamation, the operator shall not consider the cost of any activity not included in the plan for reclamation or not required by NAC 519A.010 to 519A.415, inclusive, or chapter 519A of NRS. This subsection does not limit in any way the authorities of the Bureau of Land Management, the United States Forest Service or another federal land management agency to require surety for purposes other than those of NAC 519A.010 to 519A.415, inclusive, and chapter 519A of NRS.

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A by R090-00, 7-27-2000; R044-12, 9-14-2012; R052-15, 12-21-2015)

NAC 519A.365 Submission to Division of information regarding est imation of costs for reclamation. (NRS 519A.160, 519A.190, 519A.210) The operator shall submit, on a form provided by the Division or in a similar manner:

1. Documentation for his or her calculation of the cost of executing the plan for reclamation;
2. The source of his or her estimates of costs;
3. A list of specific activities which will b e performed to reclaim the affected acres such as those in NAC 519A.360 for each type of disturbance; and
4. The total acreage of each disturbance requ iring the same activity to be performed for reclamation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.370 Determination of whether estimate of cost for recla mation is sufficient. (NRS 519A.160, 519A.190, 519A.210)

1. The Division shall review the operator's estimate of the cost for reclamation and determine if the estimate is reasonably sufficient to conduct all required reclamation.
2. If the Division determines that the estima ted cost of executing the plan for reclamation is insufficient to conduct all required reclamation, the application for a permit shall be considered to be incomplete.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.375 Disturbances of land for which surety not required. (NRS 519A.160, 519A.190, 519A.210) Surety will not be required for reclamation of land disturbances which were created before October 1, 1990, and which are no lo nger active as part of an active exploration project or mining operation on October 1, 1990.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.380 Periodic review of amount of surety; notification required; adjustment of amount. (NRS 519A.160)

1. Within 3 years after the effective date of the permit and at least every 3 years thereafter, an operator shall review the amount of surety filed to cover the cost of reclamation to determine whether it is still adequate to execute the approve d plan for reclamation taking inflation into consideration.
2. The operator shall:

(a) Notify the Division, the Bureau of Land Management, the United States Forest Service and another federal land management agency, if appropriate, of the results of the review of the surety; and

(b) Within 120 days after the review:

(1) Request a decrease in the surety; or

(2) Increase the surety,

to execute the plan for reclamation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.385 Release of surety: Request for release; conditions;denial of request. (NRS 519A.160)

1. The Division may release a surety either in whole or in part at the request of the operator.
2. The entire surety must not be released unt il all of the requirements of the permit have been fulfilled, except that:

(a) A portion of the surety covering the reclamation of a discrete part of a disturbance must be released when the requirements of the permit regarding the discrete part of the disturbance have been fulfilled.

(b) That portion of the surety covering a discrete activity must be released when the requirements of the permit regarding that discrete activity have been fulfilled.

(c) Except as otherwise provided in subsection 3, if revegetation is part of the plan for reclamation, 60 percent of the posted surety must be released upon completion of the earthwork. After revegetation has been performed by the operator on the regraded lands, according to the approved plan for reclamation, the Division may release an additional 25 percent of the surety. The remaining surety must not be released until all requirements of the permit have been satisfied.

(d) Upon transfer of a permit to a new operator and upon acceptance of the required surety from the new operator, the Division shall release the surety posted by the original operator.

3. Percentages greater than those specified in paragraph (c) of subsection 2 may be released if the operator demonstrates that the remaining surety is sufficient to ensure completion of the required reclamation.

4. Within 30 days after receiving a request for release of a surety, the agency holding the surety, or its designated agent pursuant to NRS 519A.140, shall inspect the permitted exploration project or mining operation to determine whether the operator has fulfilled the requirements of his or her permit and either:

(a) Release the surety or portion thereof as requested; or

(b) Notify the operator that the requested surety will not be released, the reasons why and the measures necessary to satisfy the requirements of the permit.

5. If a request to release is denied, the operator may appeal the decision pursuant to NAC 519A.415.

6. The 30 days within which an agency must respond to a request to release a surety pursuant to subsection 3 may be extended if weather conditions prevent an inspection of the reclaimed area.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.390 Forfeiture of surety: Grounds; notice and hearing. (NRS 519A.160)

1. A surety filed with the Division, the Bureau of Land Management, the United States Forest Service or another federal land management agency is subject to forfeiture if:

(a) An exploration project or mining operation has been completed, abandoned, or temporarily closed for a period greater than allowed pursuant to NAC 519A.285 without initiating activities for reclamation;

(b) The permit is suspended or revoked pursuant to NAC 519A.220; or

(c) The operator ceases to conduct business in the State of Nevada and does not transfer the permit to a new operator.

2. The Division shall notify an operator personally or by registered mail that his or her surety is subject to forfeiture, and inform the operator of his or her right to a hearing before the Commission. A hearing must be scheduled pursuant to NAC 519A.400, or pursuant to NAC 519A.220 if the permit is suspended or revoked.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

Trust Fund for Short-Term Fluid Management

NAC 519A.392 Payments for deposit into Fund; use and reimbursement of money in Fund. (NRS 519A.160)

1. In addition to the surety required pursuant to NAC 519A.350, on or before October 1, 2000, an operator of a mining operation that is required to hold a permit from the Department of Wildlife pursuant to NRS 502.390 shall submit to the Division:

(a) Thirty-six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $35,000,000 as of the date the operator submits the money;

(b) Twenty-four thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $7,000,000 but less than or equal to $35,000,000 as of the date the operator submits the money;

(c) Six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $1,000,000 but less than or equal to $7,000,000 as of the date the operator submits the money; or

(d) One thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is less than or equal to $1,000,000 as of the date the operator submits the money.

2. In addition to the surety required pursuant to NAC 519A.350 and the payment required pursuant to subsection 1, on or before April 15, 2001, an operator of a mining operation that is required to hold a permit from the Department of Wildlife pursuant to NRS 502.390 shall submit to the Division:

(a) Thirty-six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $35,000,000 as of the date the operator submits the money;

(b) Twenty-four thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $7,000,000 but less than or equal to $35,000,000 as of the date the operator submits the money;

(c) Six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $1,000,000 but less than or equal to $7,000,000 as of the date the operator submits the money; or

(d) One thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is less than or equal to $1,000,000 as of the date the operator submits the money.

3. In addition to the surety required pursuant to NAC 519A.350 and the payments required pursuant to subsections 1 and 2, on or before April 15, 2002, an operator of a mining operation that is required to hold a permit from the Department of Wildlife pursuant to NRS 502.390 shall submit to the Division:

(a) Thirty-six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $35,000,000 as of the date the operator submits the money;

(b) Twenty-four thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $7,000,000 but less than or equal to $35,000,000 as of the date the operator submits the money;

(c) Six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than $1,000,000 but less than or equal to $7,000,000 as of the date the operator submits the money; or

(d) One thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is less than or equal to $1,000,000 as of the date the operator submits the money.

4. The Division shall:

(a) Establish the Trust Fund for Short-Term Fluid Management;

(b) Deposit money collected pursuant to this section in the Trust Fund;

(c) Credit all interest earned on the money in the Trust Fund to the Trust Fund;

(d) Use the money in the Trust Fund only for the management of fluids at a site while the process for forfeiture of a surety pursuant to NAC 519A.390 is pending; and

(e) After the conclusion of the process for forfeiture of a surety pursuant to NAC 519A.390, if the surety was forfeited, reimburse the Trust Fund with the surety that was forfeited. Such reimbursement must be in an amount equal to the total amount of money used from the Trust Fund at the site for which the surety was forfeited.

5. An operator that operates more than one mining operation in this State may combine the amount of surety required pursuant to NAC 519A.360 for each site to determine the total amount of surety the operator is required to provide pursuant to NAC 519A.360 for purposes of determining the amount of money to submit pursuant to this section.

(Added to NAC by Environmental Comm'n by R120-00, eff. 9-25-2000)

Enforcement

NAC 519A.395 Inspections by Division and federal agencies; submission of results to operator. (NRS 519A.160)

1. The Division may inspect an exploration project or mining operation to determine if it is in compliance with the terms and conditions of a permit and the status of activities for reclamation. Such an inspection must be conducted during normal business hours and the operator may be given adequate notice so that personnel familiar with the permit and its requirements may be present.

2. Pursuant to NRS 519A.140, the Division, the Bureau of Land Management, the United States Forest Service or another federal land management agency may inspect a permitted exploration project or mining operation which is located on federal land or on both federal and private land to determine compliance with the terms and conditions of a permit and the status of activities for reclamation. Inspection of activities for reclamation on private property must be conducted during normal business hours and the operator may be given adequate notice so that personnel familiar with the permit and its requirements may be present.

3. The results of the inspection must be forwarded to the operator within 30 days of completion after the report of the inspection.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.400 Notice of noncompliance: Service; contents; withdrawal. (NRS 519A.160, 519A.270)

1. If the Division has reason to believe that an operator has violated any provision of chapter 519A of NRS, NAC 519A.010 to 519A.415, inclusive, or an approved plan for reclamation, it shall serve a notice of noncompliance on the operator. The notice must:

(a) Be served personally or by registered mail addressed to the operator at the address shown in the records of the Division;

(b) Specify each violation; and

(c) Set a date and time for a hearing and info rm the operator that his or her permit may be suspended or revoked and his or her surety forfeite d upon completion of the hearing or if the operator fails to attend the hearing.

2. The Division may withdraw a notice of nonc ompliance and cancel a hearing required by subsection 1 if the operator demonstrates that thealleged violation has been remedied or has agreed to a corrective plan of action approved by the Division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.405 Maximum amount of civil penalty. (NRS 519A.160, 519A.280) The civil penalty imposed by the Division pursuant toNRS 519A.280 must not exceed $5,000 per violation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

Miscellaneous Provisions

NAC 519A.410 Submission to Division of information and documenta tion concerning small mining operations. (NRS 519A.160)

1. The operator of a small mining operation shall submit to the Division:

(a) A sketch or topographic map of the operation depicting:

(1) The boundaries of the project area;

(2) Surface ownership within the project area;

(3) Areas to be affected and the nature of the disturbances including tailings impoundments, leach pads, waste rock dumps, buildings, roads and all other surface facilities;

(4) Areas within the project area which w ere previously affected by activities other than those of the operator or which will not be subject to additional or continuing disturbance because of his or her activities;

(5) The location of any body of surface w ater within one-half-mile down gradient from the operation which may be impacted by excess sedimenta tion resulting from the mining operations; and

(6) The location of access roads that were created before January 1, 1981.

(b) An estimate of the acreage affected by eac h type of disturbance set forth pursuant to subparagraph (3) of paragraph (a) of subsection 1.

(c) A proposed postmining use of the land and general description of the manner in which the postmining use of the land will be attained by reclamation.

2. The information and documentation required by subsection 1 must be submitted:

(a) By October 1, 1991, for a small mining operation which is active on October 1, 1990; or

(b) Before disturbance of the surface for a new small mining operation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)

NAC 519A.415 Appeals to Commission. (NRS 519A.160)

1. Any person aggrieved by:

(a) The issuance, denial, renewal, suspension,modification, condition or revocation of a permit; or

(b) The issuance, modification or rescission of any other order,

by the State Department of Conservation and Natural Resources may appeal to the Commission.

2. Any person who requests a hearing before t he Commission concerning a final decision of the Department pursuant to chapter 519A of NRS may do so by filing a request, within 10 da ys after notice of the action of the Department, on form 3* with the State Environmental Commission,

Richard H. Bryan State Office Building, 901 South S tewart Street, Suite 4001, Carson City, Nevada 89701-5249.

3. The provisions of NAC 445B.875 to 445B.899, inclusive, apply to a hearing of the State Environmental Commission requested pursuant to subsection 1.

4. The Commission will affirm, modify or reve rse any action of the Department which is appealed to it.

*(See adopting agency for form.)

(Added to NAC by Environmental Comm'n, eff. 9-19-90; A 10-29-93)

DUTIES OF DIVISION OF MINERALS

General Provisions

NAC 519A.510 Definitions. (NRS 513.063, 519A.250, 519A.290) As used inNAC 519A.510 to 519A.635, inclusive, unless the context otherwise requires,the words and terms defined inNAC 519A.512 to 519A.555, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Dep't of Minerals, eff. 10-9- 90; A 3-4-92; A by Comm'n on Mineral Resources by R069-99, 8-19-99; R066-02, 8-23-2002)

NAC 519A.512 "Administrator" defined. (NRS 519A.250, 519A.290) "Administrator" means the Administrator of the Division.

(Added to NAC by Dep't of Minerals, eff. 10-9- 90) — (Substituted in revision for NAC 519A.530)

NAC 519A.515 "Bond pool" defined. (NRS 519A.290) "Bond pool" means the program for the pooling of reclamation performance bonds that c ollects, holds and distributes money paid to the pool by its participants to assist those participants to comply with:

1. The bonding and surety requirements of chapter 519A of NRS;
2. The requirements for financial guarantees set forth in the regulations adopted pursuant to 43 U.S.C. § 1740; or
3. The bonding requirements imposed pursuant to an ordinance adopted by a county in this State.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals, 11-14-97)

NAC 519A.520 "Commission" defined. (NRS 519A.290) "Commission" means the Commission on Mineral Resources.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.525 "Division" defined. (NRS 519A.250, 519A.290) "Division" means the Division of Minerals of the Commission on Mineral Resources.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.535 "Exploration project" defined. (NRS 519A.250, 519A.290) "Exploration project" means all activities conducted in this Sta te by a person on or beneath the surface of land for the purpose of, or in connection with, determining the presence, location, extent, depth or grade of any mineral, which affects the surface.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A 3-4-92)

NAC 519A.540 "Mining operation" defined. (NRS 519A.250, 519A.290) "Mining operation" means all activities conducted in this State by a person on or beneath the surface of land for the purpose of, or in connection with, the development or extraction of any mineral. The term does not include an aggregate or sand pit.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A 3-4-92)

NAC 519A.545 "Operator" defined. (NRS 519A.250, 519A.290) "Operator" means any person who owns, controls or manages an exploration project or a mining operation.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.550 "Participant" defined. (NRS 519A.290) "Participant" means an operator who has paid money to the bond pool to cover his or her bonded liability and who is in good standing in the bond pool.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.552 "Plan" defined. (NRS 513.063, 519A.250, 519A.290) "Plan" means a plan of operation filed with and approved by the United States Bureau of Land Management or the United States Forest Service.

(Added to NAC by Comm'n on Mineral Resources by R066-02, eff. 8-23-2002)

NAC 519A.555 "Responsible regulatory authority" defined. (NRS 519A.290) "Responsible regulatory authority" means the governmental agency that has authority to require, modify, release or require forfeiture of a reclamation performance bond for a mining operation or an exploration project.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

Program for the Pooling of Reclamation Performance Bonds

NAC 519A.570 Administration by Division; application for participation. (NRS 519A.290)

1. The Division will administer the bond pool.
2. A person who wishes to participate in the bond pool must complete an application on a form provided by the Division.
3. The application to participate in the bond pool must include a statement by the applicant and documentation that:

(a) Indicates whether the applicant has ever forfeited a bond or surety held for the reclamation of mined land and, if so, the location of the operation for which the bond or surety was forfeited and the circumstances of the forfeiture.

(b) Lists the location, scale and any other pertinent details of the previous mining or exploration activities of the applicant that required reclamation performance bonding during the preceding 10 years.

(c) Shows the structure of the business organization and the financial status of the applicant at the time of application. Except as otherwise provided in subsection 4, the documentation must include:

(1) An organizational chart naming any parent company;

(2) Current and long-term assets;

(3) Current and long-term liabilities;

(4) The net worth of the business organization; and

(5) Evidence that the financial statements have been reviewed by a certified public accountant and are a fair representation of the financial status of the applicant.

4. The Administrator may waive the requirements of subparagraph (5) of paragraph (c) of subsection 3 for an applicant who:

(a) Applies for bond coverage of $10,000 or less; and

(b) Submits to the Administrator a signed and notarized affidavit stating under penalty of perjury that the information provided by the applicant pursuant to subparagraphs (2), (3) and (4) of paragraph (c) of subsection 3 is true.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A 9-16-92; A by Div. of Minerals, 11-14-97)

NAC 519A.575 Submission of information by applicant; prequalification of applicant. (NRS 519A.290)

1. An applicant may submit any part of the information required by NAC 519A.570 before submitting the remaining required information.

2. The Administrator or his or her designee may prequalify an applicant for participation in the bond pool, subject to receipt and final review of any materials required to complete the application.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.580 Notification of applicant; right to appeal denial of application. (NRS 519A.290) The Division will notify the applicant within 20 business days after receipt of an application that:

1. The applicant has been accepted to participate in the bond pool subject to payment of the entry deposit and the first installment of the premium due the first year;

2. The application is incomplete and identify what additional information is required; or

3. The application has been denied and the reasons for the denial. An applicant may appeal this decision pursuant to NAC 519A.630.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.585 Establishment of amount of bond; amount of coverage by bond pool. (NRS 513.063, 519A.290)

1. The responsible regulatory authority shall establish the amount of the reclamation performance bond.

2. A participant is subject to a maximum bond amount for which the bond pool may be liable. The maximum amount may be reached by bonding more than a single mining operation or exploration project or a combination thereof.

3. A participant may participate in the bond pool with greater bond coverage than is required by the responsible regulatory authority with the approval of the Administrator or a person designated by him or her. Any coverage in excess of the coverage required by the responsible regulatory authority must be identified and may not be used to cover reclamation costs in the event of the forfeiture by the participant. The Administrator or a person designated by the Administrator will include any such coverage in determining the amount of the deposit and premiums the participant is required to pay pursuant to NAC 519A.595.

4. The maximum bond coverage for a participant who is the operator of one or more mining operations or exploration projects, or any combination thereof, is $3,000,000.

5. A participant may request a change in his or her bond pool coverage. The Administrator or a person designated by the Administrator may require additional information before increasing the bond coverage of a participant.

(Added to NAC by Dep't of Minerals, eff. 10-9- 90; A 3-4-92; A by Div. of Minerals, 11-14-97; A by Comm'n on Mineral Resources by R066-02, 8-23-2002)

NAC 519A.590 Indemnification of bond pool. (NRS 519A.290) Before acceptance into the bond pool, the applicant must execute a general agr eement of indemnity on a form provided by the Division. After acceptance into the bond pool, the applicant must indemnify and keep indemnified and save and hold harmless the bond poo l against all loss, costs, expenses and attorney's fees incurred by the bond pool as a result of his or her participation in the bond pool or forfeiture of any part of his or her bond.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.595 Payment of entry deposit and premiums. (NRS 513.063, 519A.290)

1. Each participant must pay the entry deposi t and premiums required by this section to maintain participation in the bond pool.

2. If an operator becomes a participant befor e August 23, 2002, the participant must pay a deposit equal to 15 percent of his or her bond coverage at the time of entry into the bond pool. The amount of the deposit will be adjusted if the bond coverage provided by the pool increases or decreases solely because of a recalculation of the amount of the bond so the deposit is equal to 15 percent of the bond coverage. If the bond coverage provided by the pool increases because the plan is amended, the deposit for the bond will be calcul ated in the manner provided in subsection 3. The deposit and any addition to the original deposi t must remain in the bond pool until the participant has been released by the responsible re gulatory authority from further reclamation liability. The deposit will not be released in the event of a forfeiture.

3. If an operator becomes a participant after August 23, 2002, the amount of the deposit for:

(a) A bond that is less than $10,000, is 100 percent of the amount of the bond; and

(b) A bond that is $10,000 or more, is a percentage of the amount of the bond calculated using the following formula:

$$\frac{3}{299{,}000} \text{ (amount of bond - 10,000) } +50$$

4. Annual premiums, established as an equal p ercentage of each participant's bond coverage, must be paid by the participant:

(a) In quarterly installments on or before Mar ch 31, June 30, September 30 and December 31; or

(b) Annually in accordance with a schedule app roved by the Administrator or a person designated by him or her.

5. Upon entry to the bond pool, the participant must, based on the date of entry, pay a prorated amount of the first:

(a) Quarterly premium; or

(b) Annual premium, if the participant pays th e premium in accordance with a schedule approved by the Administrator or a person designated by him or her pursuant to subsection 4.

After entry to the bond pool, the participant must pay the regular quarterly or annual amount on or before the date the premium is due.

6. The annual premium will be calculated as follows:

(a) Except as otherwise provided in paragraph (b), for bonds that were issued before August 23, 2002, the annual premium is 5 percent of the bond coverage of a participant.

(b) For bonds that are issued on or after August 23, 2002, or for bonds that have increased because the plan is amended, the annual premium:

(1) Except as otherwise provided in subparagraph (3), for bonds whose total amount is less than $10,000, is 3 percent of the amount of the bonds.

(2) Except as otherwise provided in subparagraph (3), for bonds whose total amount is at least $10,000, is a percentage of the amount of the bond calculated using the following formula:

$$\frac{-0.5}{299{,}000}\ (\text{amount of bond} - 10{,}000) + 10$$

(3) If the amount of the deposit and the premiums paid by a participant equal or exceed the amount of the bond, is 3 percent of the amount of the bond. For the purposes of this subparagraph, any late penalty paid by a participant will not be considered in determining the amount of the annual premium.

7. Except as otherwise provided in NAC 519A.610 and 519A.615, the annual premium is nonrefundable.

8. If a change occurs in the required premium as a percentage of the bond coverage of a participant, the Administrator or a person designated by him or her will notify the participant not less than 30 days before the due date of the next:

(a) Quarterly premium; or

(b) Annual premium, if the participant pays his or her premium in accordance with a schedule approved by the Administrator or a person designated by the Administrator pursuant to subsection 4.

The Administrator or a person designated by him or her will base any change in the percentage of the premium on the recommendation of an actuary who is approved by the Commissioner of Insurance to review the status of the bond pool. The findings of the actuary must show that a change in percentage allows the bond pool to remain self-sustaining under statistically expected forfeiture rates and forecasted administrative costs.

9. The Administrator or a person designated by him or her will:

(a) Consult with the Risk Management Division of the Department of Administration to determine the availability and cost of obtaining insurance to insure against exposure to a risk that would cause the liability of the bond pool to exceed the amount of money in the bond pool.

(b) Consult with the Commission to determine whether to obtain such insurance. If the insurance is obtained, the Administrator or a person designated by him or her will establish a schedule for payment of the premiums for each participant based on the participant's portion of the total liability of the bond pool.

(c) Notify each participant of the amount of the premium the participant owes not less than 30 days before the premium is due.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals, 11-14-97; A by Comm'n on Mineral Resources by R066-02, 8-23-2002)

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NAC 519A.600 Use of money held in bond pool; interest earned on money; transfer of administrative expenses. (NRS 519A.290)

1. All money held in the bond pool must be used only for the purposes of the bond pool, including administrative expenses.

2. All interest earned on money held in the bond pool must be added to the bond pool and be used solely for the purposes of the bond pool. Participants are not entitled to receive any interest on deposits or premiums paid into the pool.

3. Except as otherwise provided in this subsection, administrative expenses, calculated at a rate of 3 percent of the average total active bond amount held in the bond pool at the end of each of the 4 immediately preceding fiscal quarters, may be transferred annually from the bond pool to the Account for the Division of Minerals created pursuant to NRS 513.103. The amount transferred must be based on the actual administrative expenses incurred by the Division and may not exceed the amount resulting from the calculations made pursuant to this subsection.

4. As used in this section, "total active bond amount" means the total amount of money held in the bond pool that has not been requested to be returned to a participant.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals by R108-13, 10-24-2014)

NAC 519A.605 Failure to pay premiums: Penalty; termination of participation; liability of bond pool. (NRS 519A.290)

1. If a participant fails to pay the premiums in the amount and by the time required by NAC 519A.595, the participant shall pay a penalty of 5 percent of the amount of:

(a) His or her quarterly premium; or

(b) His or her annual premium, if the participant pays the premium annually in accordance with a schedule approved by the Administrator or a person designated by the Administrator pursuant to that section.

2. If a participant fails to pay the quarterly or annual premium and the 5 percent penalty specified in subsection 1 within 30 calendar days after the date on which the premium is due, the Division will notify the participant that his or her participation in the bond pool will be terminated if full payment of the quarterly or annual premium and penalty is not received within 70 calendar days after the date on which the premium was due. The notice will be sent to the participant and the responsible regulatory authority by certified mail, return receipt requested, at least 30 calendar days before any action concerning termination is taken by the Administrator or a person designated by the Administrator.

3. If full payment of the quarterly or annual premium, including any penalty, is not received within 70 calendar days after the date on which it is due, the Division will send a notice to the responsible regulatory authority and the participant by certified mail, return receipt requested, that his or her participation in the bond pool is terminated. If a participant's participation in the bond pool is terminated pursuant to this section, the Division will not return the deposit paid by participant pursuant to NAC 519A.595.

4. The bond pool:

(a) Is liable for the coverage of the participant for reclamation of land that is disturbed until the date of termination.

(b) Is not liable for the reclamation of any land that is disturbed after the date of termination.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals, 11-14-97)

NAC 519A.610 Release of deposit and unused premium. (NRS 519A.290) The Administrator or a person designated by the Administrator will request the State Treasurer to release the deposit of a participant and any unused premium paid by him or her, less any outstanding penalties or premiums, within 5 business days after receipt of written notification from the responsible regulatory authority that the participant:

1. Has satisfied the requirement to reclaim land disturbed by a mining operation or exploration project and the bond may be released; or
2. Has obtained a surety which replaces the bond coverage of the participant by the bond pool.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals, 11-14-97)

NAC 519A.615 Partial release of deposit and unused premium. (NRS 519A.290) The deposit of a participant and any unused premium paid by him or her may be partially released in the same manner described in NAC 519A.610 if the responsible regulatory authority notifies the Division that:

1. The required amount of the bond has been reduced; or
2. The participant has partially substituted another form of surety for a portion of the coverage provided by the bond pool.

The reduction in the amount of the deposit required is the same percentage as the percentage decrease in the coverage provided by the bond pool.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals, 11-14-97)

NAC 519A.620 Forfeiture of bond: Action by Administrator; liability and exoneration of bond pool. (NRS 519A.290)

1. Upon notification from the responsible regulatory authority that a participant has failed to complete the required reclamation and that the responsible regulatory authority, in accordance with all applicable laws and regulations, requires forfeiture of the bond, the Administrator will:

(a) Immediately notify the participant that his or her participation in the bond pool is terminated and his or her deposit will not be returned; and

(b) Request that the State Treasurer transfer to the responsible regulatory authority an amount of money from the bond pool determined by the Administrator or his or her designee to be equal to the estimated cost of reclamation less any other bonds or surety held in favor of the State of Nevada or the United States relating to the mining operation or exploration project of the participant to which the forfeiture applies.

2. The maximum liability of the bond pool is the coverage provided to the participant relating to the mining operation or exploration project of the participant at the time of the forfeiture.
3. If the responsible regulatory authority exonerates the participant from any portion of bonded liability, the bond pool is exonerated of an equal amount of bonded liability.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

NAC 519A.625 Forfeiture of bond: Action against participant or former participant. (NRS 519A.290) In the event of a forfeiture by a participant or a former participant whose participation in the bond pool is terminated pursuant to NAC 519A.605, the Administrator or a person designated by the Administrator will immediately notify the Attorney General and request that action be taken against the participant or former participant in the name of the State of Nevada in any court of competent jurisdiction to recover the full costs incurred by the bond pool as a result of the forfeiture. Any money recovered must be deposited in the bond pool and used for the general purposes of the bond pool.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Div. of Minerals, 11-14-97)

NAC 519A.630 Appeal of denial or termination of participation in bond pool. (NRS 519A.290)

1. Any person who is denied participation in the bond pool pursuant to NAC 519A.580 or whose participation in the bond pool is terminated pursuant to NAC 519A.620 may appeal the denial or termination.

2. Written notice of the appeal must be received by hand delivery or certified mail, return receipt requested, by the Division within 20 calendar days after receipt of the notice of denial or termination.

3. The appeal must state the grounds for the appeal of the denial or termination.

4. Within 30 calendar days after receipt of a notice of appeal, the Division will send a notice of the hearing to the person appealing the denial or termination. The notice will include the time, place and nature of the hearing, the legal authority and jurisdiction under which the hearing is to be held, and a statement of the matters asserted.

5. The hearing will be held before a panel composed of:

(a) The Administrator who is the chair of the panel and hearing officer;

(b) A member of the Commission who is designated by the Chair of the Commission; and

(c) A representative of the current participants in the bond pool who is selected by the Chair of the Commission and the Administrator.

6. The person appealing the denial or termination may present evidence and has the burden of proving that the denial or termination should be modified or reversed.

7. The panel shall render a written decision which must be served personally or by certified mail upon the person appealing the denial or termination. The decision of the panel is a final decision for the purposes of judicial review.

(Added to NAC by Dep't of Minerals, eff. 10-9-90)

Fee for Filing Plan of Operation

NAC 519A.634 Amount of fee. (NRS 519A.250) The amount of the fee that an operator must pay pursuant to subsection 1 of NRS 519A.250 is $20 per acre or part of an acre.

(Added to NAC by Comm'n on Mineral Resources by R069-99, eff. 8-19-99)

NAC 519A.635 Refund of portion of fees. (NRS 513.063, 519A.250)

1. The Division will refund to an operator a portion of the fees required by NRS 519A.250 according to the following schedule:

(a) For an amended plan:

(1) That reduces the number of acres or part of an acre to be disturbed from the original number of acres or part of an acre to be disturbed; and

(2) For which a fee has been paid to the Division pursuant to NRS 519A.250,

the refund is $1 for each acre or part of an acre removed from planned disturbance by the amendment.

(b) For a plan, there is no refund.

(c) For a notice, there is no refund.

2. An operator who wishes to receive a refundmust send to the Administrator a written request and a copy of the approved amended plan showing the reduction in acreage. Within 20 business days after receiving a valid written request for a refund and a copy of the amended plan, the

Administrator or his or her designee will request that the State Controller issue a check to the operator in an amount calculated pursuant to paragraph (a) of subsection 1.

3. As used in this section:

(a) "Notice" means a notice of intent to conduct activities that disturb the surface which is filed with the United States Bureau of Land Management or the United States Forest Service.

(b) "Operator" includes a person who is required by federal law to file a plan, an amended plan or a notice with the United States Bureau of Land Management or the United States Forest Service.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A by Comm'n on Mineral Resources by R080-01, 1-16-2002; R066-02, 8-23-2002)

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF MINING REGULATION AND RECLAMATION

RECLAMATION PERMIT TEMPLATE

PERMITTEE: Company
Address
City State Zip Code

PROJECT NAME: Project Name

PROJECT LOCATION: Sections, Township, Range; Mount Diablo Baseline an d Meridian, County, Nevada

PERMIT NUMBER: 0000 **BLM CASE NUMBER:**

PROJECT TYPE: Mine **AMENDMENTS:**

Pursuant to Nevada Revised Statutes (NRS) 519A.010 to 519A.280, inclusive, and regulations promulgated thereunder by the State Environmental Commission as Nevada Administrative Code (NAC) 519A.010 to 519A.415, inclusive, and implemen ted by the Division of Environmental Protection (hereinafter the Division), this permit authorizes **Company** to reclaim the **Project Name** consistent with the conditions of this permit and the reclamation plan dated, date of Plan, *Title of Plan* and the amendments noted above. (if applicable)

This permit is effective as of the ## day of Month 20XX, and upon receipt by the Division of an acceptable surety, or verification from the fede ral land management agency that satisfactory surety has been posted. A surety is required by NAC 519A.350 prior to engaging in the activities authorized by this permit. Unless it is modified, suspended or revoked by the Division, this permit is valid for the life of the project. The permit will not now or in the future serve as a determination of ownership or the validity of any mining claim to which it might relate.

The Permittee must comply with all terms and conditions of this permit and all applicable statutes and regulations.

Issued this ## day of Month 20XX.

_____

Joseph Sawyer, P.E., Chief
Bureau of Mining Regulation and Reclamation

1. Permitted Disturbances

A. Disturbance Acreage Table: All disturbances are lo cated on private lands and/or public lands administered by the Bureau of Land Man agement or United States Forest Service (whichever applies).

Disturbance Category	Existing Disturbance Acres		Proposed Disturbance Acres		Total Disturbance Acres		Grand Total
	Public	Private	Public	Private	Public	Private	Public & Private
Open Pit	-	-	200.0	300.0	200.0	300.0	**500.0**
Waste Rock Dump #1	-	-	-	250.0	-	250.0	**250.0**
Waste Rock Dump #2	-	-	250.0	-	250.0	-	**250.0**
Waste Rock Dump #3	-	-	-	250.0	-	250.0	**250.0**
Waste Rock Dump #4	-	-	150.0	150.0	150.0	150.0	**300.0**
Access Road	4.0	4.0	10.0	10.0	14.0	14.0	**28.0**
Haul Roac	-	-	100.0	100.0	100.0	100.0	**200.0**
Tailings Impoundment	-	-	150.0	150.0	150.0	150.0	**300.0**
Cooling Pond	-	-	60.0	60.0	60.0	60.0	**120.0**
Heap Leach Facility	-	-	120.0	120.0	120.0	120.0	**240.0**
Process Ponds	-	-	20.0	20.0	20.0	20.0	**40.0**
Structures & Building Are	-	-	-	35.0	-	35.0	**35.0**
Drainage Diversio	-	-	15.0	15.0	15.0	15.0	**30.0**
Exploration Roads & Pads	75.0	75.0	50.0	50.0	125.0	125.0	**250.0**
Infiltration Basins	-	-	20.0	20.0	20.0	20.0	**40.0**
Storage & Equipment Area	2.5	2.5	500.0	500.0	502.5	502.5	**1005.0**
Total	**81.5**	**81.5**	**1645.0**	**2030.0**	**1726.5**	**2111.5**	**3838.0**

Example Disturbance Table

B. Drill holes will be plugged in accordance with t he provisions specified in Chapter 534 of the Nevada Administrative Code. All drill hole cuttings, grout, and fluids shall be contained in sumps constructed at the drill sites. No more than number in written form **(bold #)** drill holes will remain unplugged at any one time.

2. Departure from Approved Plan for Reclamation

A. Except in the case of an emergency, the operator may not depart from the approved plan for reclamation without a modification approved by the Division.

B. When an operator submits an amended plan of oper ation to the federal agency, a copy shall also be filed with the Division.

3. Fees

A. On or before April 15 of each year submit the fe es as required by NAC 519A.235.

B. On or before April 15 of each year submit the fe es as required by NRS 519A.260.

4. Reports

A. On or before April 15 of each year, the operator shall submit a report (NRS 519A.260), in a format specified by the Division, relating to the status and production of the operation and identifying each acre of land affected and land reclaimed by the operation.

5. Project Completion, Abandonment or Suspension of Work

A. The Division shall be notified in writing within ninety (90) days after an operation is complete or abandoned. The notice must state the date on which the activities for reclamation will begin as specified in NAC 519A.320.

B. The Division shall be notified in writing within ninety (90) days after work is suspended at the operation for more than one-hundred-twenty (120) days. The notice must state the nature and reason for the suspension; the anticipated duration of the suspension; and any event which would reasonably be expected to result in either the resumption of activities or the abandonment of the operation. The operator is not required to notify the Division of a temporary closure caused by weather conditions.

6. Surety

A. The Division and appropriate federal land management agency(s) shall review the estimate of the cost for reclamation submitted by the operator and determine if the estimate is adequate or reasonably sufficient to complete all required reclamation.

B. The operator shall file and maintain an acceptable surety as specified in NAC 519A.350 to ensure that reclamation will be completed. The surety amount will be based on the approved cost for reclamation.

C. Within three (3) years after the effective date of this permit and at least every three (3) years thereafter, the operator shall submit to the Division and the appropriate federal land management agency(s) an updated estimate of the cost for reclamation to determine whether the surety amount is still adequate to execute the approved reclamation plan. Inflation must be considered.

D. The Division and the appropriate federal land management agency(s) may approve release of surety either in whole or in part at the request of the operator. The operator must provide documentation on reclamation work completed and/or stages of process fluid stabilization completed before any portion of the surety may be released. (See Attachment A)

E. Release of the surety amount for reclamation of a specific component or discrete part of a disturbance does not release the operator from liability for reclamation of that component of disturbance should the reclamation fail to meet the requirements of this permit.

7. Inspection of Exploration Project and/or Mining Operation

A. The operator shall allow authorized representatives of the Division, and the appropriate federal land management agency(s) to inspect the operation, during normal business hours, to determine compliance with the terms and conditions of this permit and the status of reclamation activities.

8. Notice of Noncompliance/Suspension or Revocation of Permit

A. A notice of noncompliance may be issued by the Division if an operator fails to comply with the provisions of NAC 519A.010 to 519A. 415, inclusive; Chapter 519A of NRS; or an approved plan for reclamation.

B. The Division may suspend or revoke this permit if he operator does not resolve the noncompliance or agree to a corrective plan of action approved by the Division.

C. The surety posted by the operator may be forfeited if the permit is suspended or revoked, or the operator ceases to conduct business in the State of Nevada and does not transfer the permit to a new operator.

9. General Requirements

A. The operator shall maintain a copy of this permit and all modifications at the permitted project or operation at all times.

B. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit, shall not be affected.

C. Any noncompliance with this permit shall be reported orally to the Division within forty-eight (48) hours of the time the operator has knowledge of the circumstances. A written summary shall be provided within ten (10) days after the oral report is made.

D. Any changes in the operator's name or address shall be reported within ten (10) days to the Division in writing, and must indicate the permit number and appropriate changes.

E. Any changes in Corporation/Partnership/Proprietorship name, officers, or address shall be reported within ten (10) days to the Division in writing, and must indicate the permit number and appropriate changes.

F. The operator shall meet the revegetation standards as set forth in Attachment B.

G. An operator who initiates reclamation activities prior to meeting chemical stabilization (closure) requirements will be responsible to provide a surety for and to repair any reclaimed areas which may be re-affected by closure activities.

10. Schedule of Compliance

A. The permittee shall achieve compliance in accordance with the following schedule:

1. On or before July 1, 20XX collect data and establish the site-specific revegetation release criteria for this project in accordance with the Attachment B guideline included with this permit.

Permit Modification History:
Date (signed by Chief): For a first permit, include NOFD and permit effective date
For each modification, include the date the permit is signed by Chief and brief explanation of nature of modification.
List most current modification first (in descending order)

ATTACHMENT A

FOR MINING OPERATIONS

DOCUMENTATION OF RECLAMATION ACTIVITIES FOR SURETY RELEASE

An operator may request surety release in accordanc e with applicable State and Federal regulations. The following documentation must be s ubmitted simultaneously to the Nevada Division of Environmental Protection and the federa l land management agency prior to the agencies conducting a site inspection:

1. Map(s) clearly identifying the area, noting specific treatments and sampling locations (as applicable).

2. Description of the following activities:

Earthwork :

- The number of acres regraded and/or ripped.
- Final slope angles left after regrading.
- Methodology used to check final slope angles (e.g., clinometer, transit, etc.).
- The number of acres that received topsoil/growth medium.
- Depth and source of topsoil/growth medium and application method.
- Dates of initiation and completion of activities.

Revegetation Activities :

- The number of acres that were seeded and/or planted.
- Seed bed preparation methods utilized.
- Seeding/planting methods used (e.g., broadcast seeding, etc.).
- Provide information on how seed was covered.
- Seed mix and seeding rate; document by maintaining seed tags and any testing results (PLS, germination, noxious weeds, etc.).
- If applicable, the number of acres that received fertilization, mulch or amendments.
  - Fertilizer (N-P-K, type, application rate, application method).
  - Mulches and soil amendments (type, application rate, and application method).
  - Date of initiation and completion of activities.

Final Revegetation Sampling :

- Adjacent representative vegetation type or range site description (baseline data).
- Sampling method (e.g., line intercept).
- Number of samples taken (disturbed and adjacent representative sites).
- Statement of methodology demonstrating sample size, adequacy and how the locations of sampling sites were determined.
- Results of sampling (copy of sampling worksheet) for disturbed and representative areas. Indicate all perennial speci es located.
- Dates of sampling.

Other Reclamation Activities such as; structure and debris removal, safety feature installation, erosion control treatment, e quipment removal or other permit requirements.

3. **Interim Fluid Management (IFM) and Process Fluid Stabilization (PFS) Bond Release:**

When the closure process of a heap leach pad (HLP) and/or tailings storage facility (TSF) is undertaken in a controlled manner by the operator, release of the project bond IFM and PFS amounts may occur at the following phases/intervals of the closure process:

- IFM – when evaporation (E) or evapotranspiration (ET) Cells have been constructed and the steady state drain-down of pro cess fluids can be managed entirely within the E/ET Cells;
- PFS Phase I – recirculation of excess process fluids is no longer required and demonstration can be made that only active evaporation of process fluids is required;
- PFS Phase II – the process fluid drain-down rate is less than evaporation rate and demonstration can be made that process fluids can be managed without active evaporation, conversion of process pond(s) to E/ET Cells has been completed, and the cover system on the HLP and/or the TSF has been constructed;
- PFS Phase III – drain-down managed entirely within the E/ET Cells, demonstration is made that E/ET Cells have functioned without overtopping for a minimum of 5 years;
- PFS Evaporation Costs – at completion of PFS (costs include evaporation equipment and power costs).

4. For bond reduction, an operator must provide det ailed calculation of the surety amount proposed for release. This calculation should also show the surety amount required for the remaining reclamation work to be completed, and/or remaining PFS activities.

5. Prior to release, a field inspection is required to verify that reclamation has been performed in accordance with the approved reclamation plan and permit.

ATTACHMENT B

NEVADA GUIDELINES FOR SUCCESSFUL REVEGETATION FOR THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION, THE BUREAU OF LAND MANAGEMENT AND THE UNITED STATES FOREST SERVICE

MINING OPERATIONS

1. Reclaimed Desired Plant Communities (RPDC) for M ining Operation Disturbances

Reclamation goals for mining disturbances are: 1) stabilize the site, and 2) establish a productive community based on the applicable landuse plan and designated post-mining land uses. To meet these goals, a *Reclaimed Desired Plant Community* (RDPC) should be selected for use on the disturbed mine sites.

The RDPC is defined as:

A perennial plant community established on a distur bed site which contributes to stability through management and land treatment, and which produces that type and amount of vegetation necessary to meet or exceed bo th the land use and activity plan objective established for the site.

Several RDPCs may be selected based on site-specifi c revegetation goals and variable site characteristics for the mining distur bances. When selecting RDPCs, major alterations in reconstructed soils and the subsequent effect of this on the site's capability to establish and sustain the desired veg etation must be considered. A RDPC must have a reasonable chance for success when making the selection.

The plant community for the RDPC should be diverse, and when appropriate for the site should include grasses, forbs, shrubs and/ or trees. The RDPC shall be comprised of species native to the area, or introdu ced species where the need is documented for inclusion to achieve the approved post-mining land use. The RDPC must meet the requirements of applicable State and Federal seed, poisonous and noxious plants, and introduced species laws or regu lations. All RDPCs must be approved by the agencies. Plants for RDPCs may be selected using one or more of the following methods:

- Select existing vegetation types around the mine site to represent the varied RDPCs.
- Use test plots, demonstration areas, or areas concu rrently reclaimed within the minesite or within similar representative areas from adjacent mines to serve as the RDPCs as long as they meet the reclamation goal.
- For areas where existing vegetative types adjacent to the mine area are

severely disturbed or where test plots or demonstration areas are not reasonable alternatives, RDPCs may be selected using appropriate ecological or range site descriptions or other technical sources.

2. Guidelines for Successful Revegetation

The revegetation release criteria for reclaimed mine sites will be to achieve as close to 100 percent of the perennial plant cover of selected comparison areas as possible. The comparison or reference areas will be selected from representative plant communities adjacent to the mine site, test plots or demonstration areas or, as appropriate, representative ecological or range site descriptions. As approved by the agencies, the selected plant communities or reference areas must have a reasonable chance for success on the mine site. Each plan-of-operations shall identify the site-specific release criteria in the reclamation plan or permit. The agencies may also require specific release standards for individual plant species or vegetative types (grasses, forbs, shrubs, trees). Cover would be estimated using a method as described in Sampling Vegetation Attributes, Interagency Technical Reference, 1996, BLM/RS/ST-96/002+1730 or other acceptable technical methods.

The determination of successful revegetation of mining disturbances will require an evaluation of the data by the agencies on a site-specific basis. These data must include all of the information requested in Attachment A of the Reclamation Permit, "Documentation of Reclamation Activities for Surety Release and Annual Fee Responding". When making this evaluation, the following information shall also be considered:

- Have the desirable species been successfully established, and do they provide sufficient aerial cover to adequately protect the site from soil erosion?
- Is there evidence that a self-sustaining community has been established? Are vegetative reproduction (e.g. rhizomes) and seedling establishment of the desirable seeded species occurring?
- Is there evidence of site stability, including the lack of surface soil erosion, gully formation and slumping?
- Has the revegetation goal in the reclamation plan been met?
- Has the operator taken reasonable measures to establish the RDPC?

3. Time Frames

The success of the vegetative growth on a reclaimed site may be evaluated for release no sooner than during the third growing season after earthwork, planting and irrigation (if used) has been completed. Final bond release may be considered at that time. Interim progress of reclamation will be monitored as appropriate by the agency and operator. Where it has been determined that revegetation success has not been met, the agencies and the operator will meet to decide on the best course of actions necessary to meet the reclamation goal.

EXPLORATION PROJECTS

The same guidelines as described above should be used to evaluate the success of the RDPCs for plan-level exploration disturbances. The agencies may also decide, depending on the size and scope of the project, to evaluate revegetation and reclamation success based on general ground reconnaissance and professional judgment. Extenuating circumstances may be considered when evaluating the success of the revegetation effort. If regulatory agencies determine that remediation is required on the site, the operator and agencies will meet to determine the procedures.

BLM NOTICES

Regarding notice-level activities on public lands, the BLM will evaluate revegetation and reclamation success based on general ground reconnaissance and professional judgment. Notice-level disturbance may be considered reclaimed if in the professional judgment of the regulatory agency effective action has been taken to stabilize and revegetate the site to a condition designed to result in the establishment of a productive post-mining land use. Extenuating circumstances may be considered when evaluating the success of the revegetation effort. If the BLM determines that further stabilization or revegetation efforts are needed, the operator and BLM will meet to determine what further steps are necessary.

APPENDIX 3--NEVADA RESPONSES to CERCLA 108(b) COMMENTS REGARDING SPECIFIC MINES and RELEASES

Federal Register Wednesday January 11, 2017

BMRR Regulation Branch Response to Comments

Introduction

Except for the first two responses below which are to provide additional EPA requested information only, BMRR is providing follow-up information to four other Nevada Mine facilities that were referenced in the Federal Register CERCLA 108(b) announcement on 11 January 2017. It is important to note that Nevada has a robust monitoring, inspection and compliance program. Due to the level of containment, and permitting that requires zero discharge of all process fluids, when releases to the environment occur they are quickly discovered and reported to the Division by the Permittee, or they are discovered directly by BMRR during routine site inspections. All permitted mine facilities in Nevada that use chemicals (with rare exceptions for pilot testing facilities) are required to have an approved Emergency Response Plan (ERP) in accordance with NAC 445A.398, that describes actions that must be taken to minimize environmental impact in response to releases. The ERPs for Nevada mine facilities typically require full remediation of releases of process solution, chemicals, and petroleum products regardless of environmental risk; thus, the Nevada mining industry is held to a higher remediation standard for releases than any other Nevada industry. Remediation is performed by the Permittee with BMRR oversight until all soils and/or degraded waters of the State are remediated to current standards. All of the facilities mentioned below have had all of their process fluid releases completely remediated or remediation is in progress. None of the sites in question required any public funding and all are fully bonded. Where necessary long-term trusts are either in place or are under consideration.

No mining facilities that commenced operation after the Nevada mining reclamation program inception in September 1990 have required public funding for remediation of soil or groundwater degradation. It is important to note that the releases listed in the Federal Register are on average 20-years old. In the last 20 years, as BMRR's regulatory program has matured, the response to releases at Nevada mine facilities has improved further, becoming more uniform and with better documentation. Releases to the environment do occur at most active mine sites; however, as mentioned numerous times throughout this document, most releases tend to be easily managed because they are discovered quickly and most often consist solely of soil contamination that is excavated and placed into containment to eliminate exposure pathways and eliminate the potential for degradation of waters of the State. The program maintains a formal policy for reporting and mitigating releases per regulation. Additional federal oversight is unnecessary.

Furthermore, releases of process fluids rarely occu r at Nevada mine facilities when they are in closure, due to the static nature of closed facilit ies, the presence of lined containment with soil caps or covers, and the significant reduction in pr ocess fluid inventory through natural or mechanical evaporation methods.

Standard and Trenton Canyon Mines

Page 3463 Comment: Standard and Trenton Canyon Mines

"..EPA's data set did not contain depth to groundwater data. EPA solicits comments on depth to groundwater data for six hardrock mining facilities for which data were not collected. These are..Standard (Nevada), and Trenton Canyon (Nevada)."

BMRR Response:

At the Standard Mine Project (SMP), groundwater flows in a west north-westerly direction with varying groundwater depths originally ranging frombetween 142 feet below ground surface (bgs) to 515 feet bgs. According to the original WPCP application, there are four water-bearing zones within the SMP site that monitoring wells were positioned in. The formations include the Prida, the Natchez Pass, the Grass Valley, and alluvium. Throughout various expansions or for other various reasons during SMP operations, a portion ofthe groundwater monitoring wells have been abandoned or replaced.

Currently, a series of groundwater monitoring wellsprovide quarterly monitoring of groundwater elevations and water quality. A monitoring well located upgradient of the SMP heap leach facility has maintained a static water level of approximately 310 feet bgs. Monitoring wells positioned downgradient of the heap leach facility, have maintained static water levels of approximately 225 feet bgs. The site water supply well has been obstructed from groundwater depth measurements since July of 2014, but up until that time, maintained a static water level ranging from approximately 250 to 300 feet bgs.

The SMP WPCP application was submitted to the Division in March of 2003. WPCP NEV2003103 was issued on 2 December 2003 and the WPCP is currently active. The WPCP allows for the Permittee to process up to 7.5 million tons of ore per year, using a heap leach pad and a pair of carbon adsorption trains. Currently there is no active mining at the SMP and a majority of the equipment has been removed from the site except for the carbon columns and associated ponds, pumps and piping that collect and transfer process solutions throughout the mine site.

At the Trenton Canyon Project (TCP), depth to groundwater is in excess of 425 feet bgs for the entire TCP area. On the north side of the property depth to groundwater under the Valmy area is an excess of 550 feet bgs. To the west side of the project below the heap leach facility the depth to groundwater is in excess of 450 feet bgs. To the south of the project in the TCP area the depth to groundwater is in excess of 425 feet bgs.

The TCP was first permitted by the Division in June 1996 to the Santa Fe Pacific Gold Company. Newmont acquired the TCP through a merger with Santa Fe Gold. Since the merger,

Newmont USA Limited has been the Permittee of the TCP. A sale of the northern Valmy area to Marigold Mining Company occurred in August 2015 and is now part of the Marigold WPCP. The TCP is currently in temporary closure conducting care and maintenance on site.

Federal Register Wednesday January 11, 2017

BMRR Regulation Branch Response to Comments

Florida Canyon and Jerritt Canyon Mines

Page 3471 Comment: Florida Canyon Mine

"...The Florida Canyon gold and silver open pit mine with cyanide heap leach operation, located in Nevada, has been in operation since 1986. A groundwater plume consisting of weak acid dissociable (WAD) cyanide, mercury and nitrate was identified on the west side of the mine's leach pad and appeared to be related to process solution leakage. As a result of continued contamination of groundwater the Nevada Division of Environmental Protection (NDEP) issued a Finding of Alleged Violation and Order in August 2012. BLM also placed the mine in non-compliance in August 2012. The facility has identified and mitigated groundwater contaminant sources, as well as operated and optimized the groundwater plume pump-back system and evaluates on a quarterly basis to verify that the plume migration has been halted, and that groundwater cleanup is occurring."

BMRR Regulation and Closure Branches Response:

The Florida Canyon Mine (FCM) was constructed in 1986 and began operation in 1987, prior to the promulgation of the Nevada WPC mining regulations in 1989. Therefore, its construction was not in accordance with current minimum design requirements for process facilities found at NAC 445A.432 through NAC 445A.438. The FCM's first mining permit application was submitted to the Division on 30 December 1993. At that time, the Project consisted of open pit mining, a lined heap leach pad, and gold processing facilities.

A groundwater contaminant plume was first discovered during the review of a quarterly monitoring report in 2000. Following the discovery of contamination within a downgradient monitoring well, the Division issued multiple FOAV/ Orders requiring the Permittee to identify potential process solution sources, install monitoring wells for plume delineation, and install a pump-back system to control migration of groundwater contaminants. Extensive source investigations were conducted to rule out various process components, such as the heap leach solution collection trench, barren solution pond, and subgrade sumps located within the process buildings. Angle-boring tests were conducted under the process plant to determine whether the plant's facilities were leaking contaminants. Repairs to the solution channels, relining of the barren pond and sumps in the process area had some effect on the plume. None of these tests and remedial actions identified or eliminated all of the source(s) of the plume, thus confirming the Divisions position that the heap leach pad is also a source of the plume. During investigations, the Permittee indicated that a portion of the heap leach pad constructed prior to Nevada WPC regulations may have suffered catastrophic damage. A crushed leak detection pipe was discovered via video camera inspection. Near the central portion of the leach pad the pipe passes

through and is booted to the liner of the heap leach pad. Current best-engineering practice does not allow for this type of installation and due to the location of the damage under the fully-loaded leach pad, repairs to the existing pipe could not be performed. On January 30, 2015, the Permittee was ordered, pursuant to NAC 445A.430 and NAC 445A.441, to permanently close the center portion of the heap leach pad where the plume appeared to be originating. The southern portion of the pad has been closed since 2006. Currently, two-thirds of the heap leach pad has been closed; the non-leaking northern portion remains open for recirculating solution while solution inventory is reduced through evaporation. The northern portion of the pad is scheduled to be closed following the construction of the South Area leach pad expansion, which is currently underway. Makeup water and cyanide addition ceased in early 2015 to the central and northern portions of the leach pad. The Division only required the central portion of the leach pad to be closed as a part of the enforcement action. The permittee was not required to discontinue leaching on the northern portion of the leach pad, but did so to assist with water management requirements. The Permittee resumed leaching on the northern portion in September 2016. The Division concluded on June 17, 2016 that the Permittee had complied with release investigation/follow up actions and the enforcement case was closed while additional corrective actions described above continue.

The remaining groundwater contamination plume consists of elevated concentrations of arsenic, chloride, mercury, nitrate, and total dissolved solids. A pump-back system continues to operate and is modified as necessary to maintain hydraulic control of the plume, which is sampled quarterly via a network of monitoring wells. Reports with sampling results are submitted by the Permittee to the Division each quarter for review. Over time, monitoring requirements have been reduced due to evidence of plume capture and decreased contaminant levels.

The Division has approved the Florida Canyon Final Plan for Permanent Closure (FPPC) for the entire extant leach pad. The closure work done to date with regard to the 2015 FOAV/Order is in accordance with the approved FPPC. This includes re-sloping, covering the pad with 2-3 feet of growth media, re-seeding, and promoting meteoric run-off from the covered pad. The system of pump-back wells is currently capturing the plume and preventing it from migrating further downgradient. Continued operation of the pump-backsystem is required until groundwater is no longer degraded above drinking water standards (NAC 445A.424) or the Division approves a demonstration pursuant to NAC 445A.22745 that remediation may be terminated.

No public money is currently being, or has ever been, utilized for the remediation activities (seepage or otherwise) at the Florida Canyon Mine site. All remedial activities have been paid for by the Permittee, with oversight by BMRR, which isfully funded via permit fees. Although this has been a complex and long-lasting remedial project, the BMRR oversight and enforcement action have been effective and are leading toward final mitigation with permanent source elimination. There is no demonstrated need for additional federal financial assurance at this site.

BMRR Reclamation Branch Response:

As stated in the Federal Register, dated January 11 , 2017, under the CERCLA 108(b) proposed rules for hard rock mining, the noted Florida Canyo n gold and silver mine has been in operation since 1986. BMRR has regulated mining activities un der regulations adopted in 1989. NAC 519A.010 - NAC 519A.415 were developed to implement the requirements of the NRS 519A.010 - NRS 519A.290 to ensure reclamation of lands subject to mining operations. Regulations require each mine operator to submit a Plan of Operations, a Reclamation Plan and an approved reclamation cost to be posted with a government age ncy prior to any construction at the mine site. Regulations require an updated reclamation co st every three years to account for inflation. All modifications within the three-year time span must be submitted and approved with a revised reclamation permit and the associated surety bond m ust be posted prior to construction. Implementation of these statutes and regulations ensures public safety and protection of waters of the State of Nevada, and provides for a productive post-mining land use.

The BMRR Reclamation Branch implements the noted regulatory framework (NRS and NAC) with a designated environmental scientist-permit writer-site inspector who reviews the mine's Plan of Operations, Reclamation Plan, and associated reclam ation costs, and performs routine onsite inspections providing verification of the documenta tion submitted. The environmental scientist evaluates a mine's reclamation cost using the Nevad a SRCE program, and the overall PFS cost using the HLDE program and the associated PFCE prog ram. These Nevada programs are widely recognized and vetted systematic methodologies, used in many other states and countries, which provide the ability to input site-specific criteria to calculate the reclamation cost for each type of mine component and mine design. The SRCE program calculates reclamation earthwork volumes and re-seeding costs. The PFCE program determines p rocess solution management costs to achieve passive closure. These reclamation cost pro grams are updated yearly using approved Federal Davis Bacon labor rates, hourly rental equi pment rates for a third-party contractor to perform the reclamation work, and includes a government administration add-on rate cost of 25-40%, dependent upon a mine's disturbance, to implement the posted surety bond.

Nevada regulations require PFS management costs for mines with process fluid facilities. An IFM is a required 6-month site-specific requirement which calculates a reclamation cost to account for 6 months of 24/7 labor, rental pumps and electrical power costs for the re-circulation of process solution to prevent pond overflows. IFM provides a conservative interim timeframe until a government agency can secure the posted surety bond amount in the case that an operator fails to perform the required reclamation. The environmen tal scientist works in cooperation with the designated BMRR Reclamation Branch Professional Engineer to perform the IFM evaluation cost, evaluate the HLDE program and the PFCE program. The HLDE program provides site-specific user inputs to account for a leach pad acreage footprint and height, the process solution application rate per acre, the hydraulic conductivity parameterbased upon the ore grain-size distribution and the total volume of process solution that will need to be actively evaporated based upon the

solution application rate per acre, and includes th e remaining draindown solution of the older leached acres. These combined HLDE inputs provide a solution drain-down curve which determines the total number of months of evaporation needed to reach a passive closure volume.

The BMRR Reclamation Branch uses the PFCE program to determine the PFS costs based upon the number of months as determined by the HLDE program for evaporation of the solution inventory. The costs include the rental of re-circulation pumps and new turbo evaporators and the total 24/7 labor hours required for the pumping and evaporation of the solution inventory.

The Florida Canyon Mine currently has a total surety bond amount of $39,189,469.00 posted with the BLM State office in Reno, Nevada, and is up to date as of November 23, 2016. The total leach pad earthwork reclamation and PFS cost is $24,810,3 31.00. The leach pad IFM 6-month cost is $2,838,024.00 with an additional $8,013,026.00 for longer-term PFS management costs. There is $2,132,920.00 to convert the existing lined process ponds to evaporative passive closure ponds (E Cells). The leach pad PFS cost includes 5 years to operate the ground water pump-back system with six existing pump-back wells. Approximately 15 0 acres of the leach pad has been concurrently reclaimed with a 2-foot thick evapotra nspiration soil cover to minimize infiltration of meteoric water and provide a seeding base for re vegetation success. Vegetation has been established but has not yet reached maturity.

BMRR, in cooperation with the BLM and the Permittee , has established a long-term trust fund, which includes the cost of operating the pump-back well system for an additional 25 years to monitor and mitigate the noted groundwater plume. The long-term trust includes E Cell synthetic liner replacement costs for 500 years with fencing replacement. The current trust fund amount as of November 2016 is $7,093,408.00 with the fund slightly over performing the projected value at this time.

Page 3471 Comment: Jerritt Canyon Mine

"...The Jerritt Canyon mine located in Nevada has bee n in operation since 1981. The gold and silver mine is an open pit and underground cyanide vat leach operation that also processes refractory ores using both roasting and chlorinatio n processes. Seepage from the Tailings Storage Facility 1 (TSF–1) was detected in the allu vium in 1987. In an effort to address the seepage issue nine trench drains were constructed a long the embankment toes in 1988 to intercept and collect seepage from the impoundment. As of January 2015, a ring of ninety monitoring wells surrounded TSF–1, of which 76 are operational. The facility is required to operate, maintain and monitor the Seepage Remediati on System at all times to ensure the capture of affected groundwater, to preclude furthe r migration, and to ensure contraction of the overall extent of the TSF–1 seepage groundwatercontaminant plume. Contamination from TSF–1 leakage has degraded groundwater in the immed iate vicinity, including in some cases with antimony, arsenic, cadmium, magnesium, mangane se, mercury, selenium, and WAD cyanide. Authorization by NDEP to impound tailings slurry into another tailings storage facility (TSF–2) was granted in July 2013 and almost immediately, the 150 gpd permitted leak detection rate was exceeded. The facility believed that the s pecific cause of the exceedance was unknown but it was assumed to be puncture(s) in the primary liner system and/or residual meteoric waters that entered the system during line r repairs before operation began. After several unsuccessful attempts at addressing the leakage, the facility opted to manage TSF–2 as a single-lined facility and agreed to install vadose zone wells outside the periphery of TSF–2."

BMRR Regulation and Closure Branches Response:

The Jerritt Canyon Mine's TSF-1 began construction in 1981 and pre-dates promulgation of Nevada WPC mining regulations in 1989. Therefore, i ts construction was not in accordance with the current minimum design requirements for tailing s storage facilities at NAC 445A.437. TSF-1 does not have an engineered liner system; however,the impoundment does have a prepared sub-base consisting of graded and partially compacted soil and tailings mix. For new tailings storage facilities, the Division currently requires full co ntainment with at least one synthetic liner, which goes beyond the minimum design criteria for tailing s storage facilities established at NAC 445A.437 but is consistent with the authority provi ded at NAC 445A.432 for the Division to use best-engineering judgement to determine whether additional containment is necessary.

A groundwater contaminant plume was discovered in 1987 and a system of pump-back wells and monitoring wells was installed and has been operate d semi-continuously ever since to prevent further migration of the contaminant plume. The gro undwater contaminant plume consists of chloride and total dissolved solids concentrations, with sporadic antimony, arsenic, cadmium, magnesium, manganese, mercury, sulfate thallium, an d WAD cyanide concentrations, that exceed groundwater quality standards established a t NAC 445A.424. Downgradient surface water in Foreman Creek is routinely monitored and has not shown any degradation. Likewise, off-site wells at a downgradient third-party ranch have not shown degradation of groundwater caused by the Jerritt Canyon Mine facility.

TSF-1 was constructed in seven phases from 1981 to1998, and is approximately 350 acres in size. In 2010, the Division required submittal of a Final Plan for Permanent Closure for TSF-1, and implementation of the FPPC after Division approval,combined with a required proposal to design, construct, and operate a new double-lined TSF-2 to replace TSF-1. Tailings deposition to TSF-1 ceased during the third quarter of 2013 with the co mmissioning of TSF-2. By October 2014, the TSF-1 supernatant pool had dried completely. Perman ent closure activities are ongoing (i.e., fill and liner being installed prior to cover) and are expected to be complete in 2018.

In the late 1980s, to address the seepage issue and prevent further degradation of the waters of the State, tailings deposition into TSF-1 was modifed from subaqueous to subaerial in an attempt to reduce high concentrations of chlorine entering TSF-1, and to increase compaction of the tails. The past elevated chlorine concentrations were a result of a legacy chlorination circuit used within the wet mill. This circuit was closed during the mi d-1980s and that facility is in the process of being dismantled during the first quarter of 2017.

In addition to changing the tailings deposition method, nine trenches were constructed along the embankment toes in 1988 to intercept and collect se epage from the impoundment. These trenches have been consolidated into five collection trenches. Pump-back wells were installed to transfer seepage back to the mill as reclaim water or to the evaporation pond. The collective pumping rate from these wells has ranged from 200 gallons per minute (gpm) to 1,400 gpm and the current flowrate is 550 gpm.

The above seepage recovery system is a result of mu ltiple BMRR enforcement actions. An FOAV/Order was initially issued March 5, 1991 to re solve cyanide and chloride contamination originating from TSF-1. A second FOAV/Order was iss ued November 12, 2008 to optimize the seepage collection system, evaluate additional seep s identified in the TSF-1 embankment and evaluate its stability, and finely to reduce and ul timately eliminate the TSF-1 supernatant pool (plume source). On October 13, 2009, BMRR and the P ermittee agreed to a consent decree that was completed in Elko Nevada District Court.

Beginning in 2015, the pumpback well system was upg raded with the addition of flow totalizers and an electronic telemetry system so that all of t he pump-back wells can now be monitored remotely for flow rates and depth to water. The im proved monitoring has allowed for better pump operation, reduced downtime and maintenance, a nd a much improved facility water balance. The plume is managed using a network of 92 downgradient wells.

An FPPC for TSF-1 was submitted to the Division in August 2011. The FPPC was revised in 2014 and again in 2017. The FPPC for TSF-1 includes characterization and cleaning of ancillary piping, structures and equipment prior to removal. The oute r tailings embankment is currently well vegetated to inhibit erosion damage. Many years will be required for the tailings solids to dewater through evaporation and drain-down. Once dry enough, TSF-1 will be covered with at least 3 feet of waste rock to build a platform for heavy equipment; then a cap consisting of geosynthetic liner and 3 feet of growth media will be installed. The g eosynthetic liner will consist of 40-mil linear

low-density polyethylene (LLDPE) and will extend to the inside edge of the TSF-1 embankment crest perimeter. LLDPE was selected because its elasticity will accommodate the settling that will occur as the tailings material continues to dry out. The cap is designed to inhibit further infiltration of meteoric water into the tailings solids. Stormwater run-off will be removed from the TSF-1 surface via flow control structures, consistent with the Reclamation Plan. Ultimately, the drain-down flow from the dried tailings in TSF-1 will diminish to the extent either that groundwater is no longer degraded above drinking water standards or a demonstration can be made pursuant to NAC 445A.22745 that remediation may be terminated. At that point, the pump-back wells will be properly plugged and abandoned pursuant to NAC 534.358 through 534.438, and other pump-back system components will be removed and properly disposed in accordance with the FPPC and applicable regulations.

In December 2016 as a part of the TSF-1 FPPC the Permittee began mounding the tailings beach above the 6,389-foot elevation predominately in the northern half of the low-point area. This mounding will offset the higher amount of consolidation settlement expected in the low-point area and assist with the final surface water run-off plan. The Temporary discharge of tailings slurry will cease on August 1, 2017. This action will assist with the final closure of TSF-1. Permanent closure activities are ongoing with liner and fill being installed prior to final cover.

TSF-2 History: The above referenced consent decree and the 2010 Permit renewal required the Permittee to submit engineering designs for the construction of a new TSF (TSF-2). The Permittee submitted a Major Modification in December 2010 (approved in July 2011) to replace TSF-1 with a new, double-lined (80-mil high-density polyethylene (HDPE) primary liner, a 60-mil HDPE secondary liner), and leak detected tailings facility with a dry storage capacity of 9 million tons. TSF-2 was proposed to be constructed in two phases.

Pursuant to NAC 445A.398, a Tentative Plan for Permanent Closure (TPPC) of TSF-2 was submitted with the TSF-2 design. In accordance with NAC 445A.447, the TPPC must be replaced with a more detailed FPPC at least two years before the anticipated permanent closure of TSF-2. The most recent update (2014) of the TPPC for TSF-2 describes tentative closure actions very similar to those in the FPPC for TSF-1, including cleaning of ancillary infrastructure, removal of components or burial in place, installation of a waste rock platform, and installation of a cap consisting of a geosynthetic liner and 3 feet of growth media.

BMRR authorized deposition of tailings slurry into TSF-2 in July 2013 and almost immediately, the permitted allowable leakage rate for the TSF-2 leak collection and recovery system (LCRS) was exceeded. BMRR provided the following options to the Permittee: 1) locate and repairing the puncture(s) in the primary liner, or 2) manage TSF-2 as a single-lined tailings impoundment. After several unsuccessful attempts to address the primary liner leakage, the Permittee opted to manage TSF-2 as a single-lined facility and agreed to install vadose zone wells outside the periphery of TSF-2.

During the 2nd quarter 2016, the Permittee decided to postpone construction the TSF-2 Phase 2 expansion and elected to dedicate resources to accelerate the TSF-1 closure and to determine the feasibility of converting the west basin of the Water Storage Reservoir (WSR) to a TSF.

BMRR Reclamation Branch Response:

As stated in the Federal Register, dated January 11th, 2017 under the CERCLA 108(b) proposed rules for hard rock mining, the noted Jerritt Canyon gold and silver mine has been in operation since 1981. The BMRR has regulated mining activities under regulations adopted in 1989. NAC 519A.010 - NAC 519A.415 were developed to implement the requirements of NRS 519A.010 - NRS 519A.290 to ensure reclamation of lands subject to mining operations. Regulations requires each mine site to submit a Plan of Operations, a Reclamation Plan and an approved reclamation cost to be posted with a government agency prior to any construction at the mine site. Regulation requires an updated reclamation cost every (3) three years to account for inflation. All modifications within the three-year time span must be submitted and approved with a revised reclamation permit and the associated surety bond posted prior to construction. The required three year reclamation cost update incorporates all mine modifications within the three-year period. Statues and Code implementation insures public safety, protection of Waters for the State of Nevada and provides for a post-mining productive land use.

The BMRR Reclamation Branch implements the noted regulatory framework (NRS-NAC) with a designated environmental scientist-permit writer-site inspector who reviews the Mine's Plan of Operations, the Reclamation Plan, associated reclamation costs and performs routine onsite inspections providing verification of the documentation submitted. The environmental scientist evaluates Jerritt Canyon Mine's reclamation costs using the Nevada SRCE program, and the overall PFS cost using the HLDE and PFCE programs. The BMRR HLDE program is used to verify the operator's process fluid management of the tailings facility to determine the timeframe to passive closure. The SRCE and the PFCE programs are widely recognized and vetted systematic methodologies which provide the unique ability to input site-specific criteria to calculate the reclamation cost for each mine type of mine component and accommodate every mine design. The SRCE program calculates reclamation earthwork volumes and the re-seeding costs. The PFCE program determines process solution management costs to achieve passive closure. These reclamation cost programs are updated yearly using approved Federal Davis Bacon labor rates, hourly rental equipment rates for a third party contractor to perform the reclamation work, and includes a government administration add-on rate of 31 % of additional costs to implement the posted surety amount for this mine site.

Nevada Regulations require PFS management costs for mines with process fluid facilities. An IFM is a required 6-month site-specific requirement which calculates a reclamation cost to account for 6 months of 24/7 labor, rental pumps and electrical power costs for the re-circulation of process

solution to prevent pond overflows. IFM provides a conservative timeframe and cost based upon the maximum mine operational rate until a governmen t agency can secure the posted surety amount in the case an operator fails to perform. The environmental scientist works in cooperation with the designated BMRR Reclamation Branch Profess ional Engineer to perform the IFM cost, evaluate the TIDE program and the PFCE program. The HLDE program provides site-specific user inputs to account for a tailings facility process s olution application and drain down based upon the hydraulic conductivity parameter to determine t he volume of process solution that will need to be actively managed to reach a passive closure v olume into E Cell closure pond. The PFCE program determines the PFS costs based upon the num ber of months as determined by the TIDE program for evaporation of the total solution inven tory. The costs include the rental cost of re-circulation pumps, new turbo evaporators and the to tal number of 24/7 labor hours required for the pumping and evaporation of the solution inventory.

The TSF-1 tailings facility has a total disturbance footprint of 361 acres. As of November 2016, concurrent reclamation includes 185 acres of the ta ilings surface covered with 940,000 cubic yards of overburden material (3.0 ft. depth) and the installation of 3,820,035 square ft. (88 acres) of 40 mil HDPE geomembrane liner over this placed cover material. A reclamation cost is assigned for an additional cover placement of 3.0 ft. of growth medium over the geomembrane to support revegetation success.

The TSF-1 has a Seepage Recovery System which is cu rrently operating with 90 pump back wells surrounding the impoundment perimeter to control an d capture the contaminant plume. The seepage solution is collected and piped to a lined pond for active evaporation. The pump back system is expected to operate for more than 11 years.

TSF-2 tailings facility has a total disturbance foo tprint of 135 acres and the reclamation plan will utilize the same reclamation protocol as noted abov e for the TSF-1 closure. This facility is active with underdrain solution seepage pumped to a series of double lined ponds. In addition there are peripheral monitoring wells installed.

BMRR works in cooperation with the USFS and the ope rator of Jerritt Canyon Mine to determine the reclamation costs which are updated yearly in A pril. The current total Jerritt Canyon Mine surety bond amount is $74,392,879.00 includes a sur ety determination amount of $10,830.932 which is posted separately with the USFS. Individu ally, the TSF-1 and TSF-2 have earthwork reclamation costs for the tailings earth cover, growth medium placement and re-grading costs is $5,113,620.00. The geomembrane liner placement cost s are $4,841,180.00. The 6-month IFM cost is $1,229,848.00. The PFS management costs for re-circulation, replacement the TSF-1 wells and active evaporation of the solutions volume inve ntories is $23,497,857.00. The revegetation cost for these facilities is $122,762.00.

Goldstrike Mine Release 2003

Page 3474 Comment Goldstrike Mine Release:

"..Releases also have occurred from other leach pad operations, including the Barrick Goldstrike mine in Nevada, where there was a release of 159,000 gallons of cyanide in 2003.."

BMRR Regulation Branch Response:

Listed below is a chronology of the 2003 release at the Goldstrike Mine. It should be noted that no public funds have been spent on any clean up or remediation activities at the Goldstrike Mine facility. All releases of process fluids have been managed and remediated appropriately under the direction of the facility assigned BMRR compliance inspector.

The spill occurred on November 12, 2003 for 53 minfrom 7:18 - 8:11 PM. Original release volume estimate was 159,000 gallons, assuming 100% release of 3,000 gpm for 53 minutes at the North Block Area. In the 10-day report the volume estimate was increased to 185,500 gallons. Supernatant solution was sampled at release: 16.45 mg/l WAD cyanide. The solid fraction was also sampled at 25.28 mg/l WAD cyanide. Total sodium cyanide (NaCN) was calculated at 30 pounds. The estimated volume of 185,500 is an overestimate due to a large volume of the material flowing within containment in lined clay pipe ditch to a concrete lined tailings event pond, which filled approximately 50%. A small amount of the release also flowed on a road and into an adjacent storm pond.

The spill was initially discovered due to a drop in flow detected at the Roaster control panel. An operator was dispatched to investigate who found aruptured flange fitting on HDPE pipe spraying tails 50-60' in air being blown by 40+ mph winds onto approximately 100 yard by 30 yard area of adjacent south bank of Brush Creek, which was dry at the time. The operator radioed for immediate shutdown of pipe flow. This is the only flange fitting on the tails lines in this area - all other joints are welded HDPE. Release flowed down Brush Creek all the way to Rodeo Creek diversion and then along it to a few 100 yards downstream of Rodeo Backfill Shaft 10,650 ft total flow path. A temporary earthen dam was created tostop release at this point. The entire release above Rodeo Creek was excavated and WAD cyanide confirmatory samples were taken. Contaminated material was taken to North Block tails impoundment. The Rodeo Creek channel is riprapped and underlain with a Claymax sheeting. The release percolated through riprap and red tails visible between boulders. This section was washed with dewatering water and the effluent collected in a sump dug and lined for this purpose at the temporary dam. Effluent in the sump was pumped via guzzler trucks to the North Block Roaster Containment Pond. The drainage was cleaned completely to avoid degradation of surfacewater in the future. Three inspection trenches dug across Rodeo Creek, in June after spring flow stopped, to inspect for red tails and none were found. Although, a thin layer was found nearby in several spots shallowly buried under recent gray sediment. Thirty shallow samples in three transects across Rodeo Creek were all non-detect

for WAD cyanide except for one, which was resampled and yielded non-detect. Confirmatory sampling plan for Brush creek and adjacent hillside was to be no more than 10 subsamples per composite sample, and each subsample no more than 100 ft from the next. The BMRR mine compliance inspector conducted inspections of remediation work on 11/13/03, 2/26/04, 6/10/04. Photos sent of original release.

The 10-day report was received 11/24/03 on time, including map of release extent and updated volume and NaCN totals. Preventative measures provided in separate letter received 12/5/03, and also in 7/15/04 final report. As of 1/22/04 approximately 250,000 gallons of wash effluent and 40,300 cubic yards of soil were removed. An approved sediment control structure was constructed in Rodeo Creek to prevent sediments from being washed downstream. Remaining Brush Creek and hillside confirmatory sample results submitted on 3/16/04. At about this time Brush Creek and Rodeo Creek began flowing so final sampling of Rodeo Creek (described above) had to wait until flow stopped in May 2004. Samples of Rodeo Creek water passing the sediment control structure at the downstream end of the release indicated no detectable cyanide. Final report with Rodeo Creek sample results, sample map submitted 7/15/04. The excavated hillside also reseeded. Sediment control structure at toe of release removed to North Block tails and confirmatory WAD cyanide results from under structure submitted 9/17/04 - all non-detect.

To prevent future releases the failed stub-end flange was replaced with welded HDPE joint. Standard operating procedures where updated for responding to flow variations in tailings line and an alarm was installed in conjunction with telemetry for flow pressures.

No further action required per NDEP 8/4/04 correspondence.

Goldstrike Mine Release 1995

Page 3474 Comment Goldstrike Mine Release:

"..Releases also have occurred from other leach pad operations, including the Barrick Goldstrike mine in Nevada..21,625 gallons of sodium cyanide in 1995."

BMRR Regulation Branch Response:

It should be noted that no public funds have been spent on any clean up or remediation activities at the Goldstrike Mine facility. All releases of process fluids have been managed and remediated appropriately under the direction of the facility assigned BMRR compliance inspector.

On October 17, 1995 at 5:30 am based on initial estimates, approximately 21,625-gallon sodium cyanide solution spill occurred at the Barrick Goldstrike Mine AA Leach Facility. The cause of the spill was a ruptured twelve-inch diameter header line. The spilled material flowed along the mine access road and entered a stormwater pond. Due to the compaction of the dirt access road, the majority of the liquid ended up in the stormwater pond.

Following the completion of the cleanup activities, the actual volume of solution released was determined to be 11,200 gallons. The fluid volume was determined by the actual amount of free liquid collected with a vacuum truck combined with the moisture content times the volume of excavated soil. The actual sodium cyanide concentration of the barren solution released, as sampled from an area adjacent to the line break was 120 ppm, equaling 11.2 pounds of sodium cyanide released.

Immediately following the shutdown of the failed barren line, excavation procedures were initiated on all soils that came in contact with the barren solution. A road grader was used to blade the road surface and perimeter berm down to dry soil. Approximately 160 cubic yards of road surfacing material and 425 cubic yards of soil from the stormwater pond were excavated and removed to the AA Heap Leach pad. As an additional measure, the access road and excavated stormwater pond were treated with sodium hypochlorite solution follow excavation activities. All cleanup was completed on October 17, 1995 for all areas from the line break to the inlet to the stormwater pond. Clean out of the stormwater pond was completed on October 22, 1995.

Waters of the State were not threatened and the area impacted by the released material were remediated quickly with oversight and approval from the BMRR site assigned mine compliance inspectors. No public funds have ever been required to manage spilled material at mine site in Nevada that commenced operation after promulgation of Nevada reclamation regulations in September 1990.

Florida Canyon Mine Release 1996

Page 3474 Comment Florida Canyon Mine Release:

"...[T]he Florida Canyon mine in Nevada released 52,500 gallons of sodium cyanide (30 percent solution) in 1996."

BMRR Regulation Branch Response:

On December 30, 1996, at the Florida Canyon mine, during a routine inspection by a process plant operator a flow of water was discovered next to the process building. The flow was process fluid originating from a solution ditch that transmit solution into a pipeline that then empties into a process pond. It was determined that a partially obstructed pipe allowed approximately 52,500 gallons of process fluid to be released between 10:30 pm on December 29 and 12:10 am. On December 30. It was easily to identify the flow path due to dry ground conditions with the total flow path extending approximately 6,000 feet. Most of the solution was contained within a three-foot wide drainage channel. The estimated volume of sodium cyanide was 20.9 pounds. The flow did not encounter any surface waters and there were no known animal mortalities.

Twenty-eight soil samples were collected later the same day on December 30, 1996 a total of for analysis to determine the extent of the release. The highest concentration of WAD cyanide was 22.5 ppm. The visible pools of standing water were neutralized with dilute calcium hypochlorite. Approximately 700 cubic yards of impacted soils were excavated and placed into containment on the heap leach pad. On December 31, 1996 an additional 10 samples were collected to confirm remediation success.

To prevent further releases, the Permittee installed a high water level indicator in the solution flow ditch along with an interconnected pump that would automatically transfer fluid to the barren pond in an upset condition. The facility access road was recontoured to direct any future flows to emergency event and sediment ponds. Waters of the State were not threatened and the areas impacted by the released material were remediated quickly with oversight and approval from the BMRR site assigned mine compliance inspectors. No public funds have ever been required to manage spilled material at an active mine site in Nevada.

Robinson Mine Release 1996

Page 3474 Comment Robinson Mine Release:

"...The Robinson Nevada Mining Company operates the Robinson Operation surface mine in White Pine County, Nevada. This facility produces gold and copper using flotation processes. The facility released copper flotation tailings five times in 1996, leading to violations of its water pollution control permit."

BMRR Regulation Branch Response:

The releases in question all occurred during the mill start-up period after several months of inactivity. Releases during a start-up period at any operating mine site are not uncommon and are to be expected. In addition, the Ely area typically experiences sub-zero temperatures this time of the year, which may have also contributed to the increased number of releases observed, but tended to allow for easier remediation because of the frozen ground surfaces. All five releases noted at the Robinson Mine were quickly cleaned up with the spilled material returned to containment within the process circuit or tailings impoundment. Waters of the State were not threatened and the areas impacted by the released material were remediated quickly with oversight and approval from the BMRR site assigned mine compliance inspectors. No public funds have ever been required to manage spilled material at mine site in Nevada that commenced operation after promulgation of Nevada reclamation regulations in September 1990.

Release #1 (1/7/1996; 5,000 gallons flotation tailings slurry) was the result of a tailings feed pipe disconnecting at the cyclone bank on the tailings embankment. The release was confined to a small area (approximately 500 square feet) on the downside of the tailings embankment. The cyclone pipe connection was repaired the same day, the collected slurry was removed from the embankment and placed within the tailings impoundment, and the embankment and tailings impoundment were repaired the same day.

Release #2 (2/12/1996; 66,000 gallons flotation tailings slurry) was the result of a cyclone failure on the tailings embankment, resulting in the tailings slurry overtopping the tailings embankment, collecting in a ditch. The slurry was collected via vacuum truck the same day and returned to the tailings impoundment. The impacted soil was removed the next day and placed in the tailings impoundment. The cyclone was repaired and returned to service.

Release #3 (2/26/1996; 2,500 gallons flotation circuit reclaim water) was the result of a valve failure on the booster pump feeding the reclaim water head tank, resulting in the reclaim water overflowing the tank, overtopping the containment berm, and entering a roadside ditch. The remaining reclaim water present was sampled and based on the results, allowed to percolate/evaporate within the ditch. The valve was repaired and returned to service the day of the release.

Release #4 (3/7/1996; 10,000 gallons flotation circuit reclaim water) was the result of a control valve failure in the mill facility. Reclaim water overflowed containment and quickly overwhelmed the tailings pump house sump. Reclaim water was diverted to the tailings thickener emergency containment pond and returned to the process circuit following the replacement of the control valve. New operating procedures were developed and implemented and a new surge water tank was installed to minimize any future recurrence.

Release #5 (3/20/1996; 4,000 gallons flotation circuit tailings slurry) was the result of a sump in the mill facility overflowing its containment due to a faulty level indicator and entering a gravel parking area where it was eventually contained. The sump level indicator was replaced, the standing solution was collected by vacuum truck and returned to the process circuit, and the impacted gravel was returned to the mill circuit. All remedial actions were completed on 3/22/1996.

NEVADA DIVISION OF
ENVIRONMENTAL PROTECTION

STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

July 11, 2017

Ms. Sonya Sasseville
Director, Program Implementation and Information Division
US EPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 5303P
Washington, DC 20460

Submitted to www.regulations.gov

RE: *Financial Responsibility Requirements Under CERCLA § 108(b) for Classes of Facilities in the Hardrock Mining Industry – Proposed Rule*

Docket ID No. EPA-HQ-SFUND-2015-0781

Dear Ms. Sasseville:

The Nevada Division of Environmental Protection (NDEP) provides these comments for consideration by the US Environmental Protection Agency (EPA). Nevada is a national leader in regulating hard rock mining activities in a manner that protects valuable water and other environmental resources while supporting a growing and sustainable mining industry of critical importance to the State's economy. After reviewing the proposed rule, NDEP has concluded that the proposed additional financial assurance regulation is unnecessary, duplicative and potentially harmful because Nevada's existing program provides strong, and more than adequate, protection against the degree and duration of risk posed by hazardous substances at operating Nevada hardrock mines.

1. **Nevada's existing regulatory programs (including financial assurance programs) protect against the degree and duration of risk posed by hazardous substances at operating Nevada hardrock mines, therefore additional federal regulation is unnecessary.**

As detailed in the attached supporting document, the Nevada hardrock mining regulatory programs, including its reclamation surety program administered by NDEP, meet or exceed necessary technical criteria in all thirteen response categories of the proposed rule. Nevada's mining regulatory programs are comprehensive and have evolved since their enactment in 1989 and 1990 to address identified and potential risks posed by hazardous substances and pollutants at operating mines, including authority for NDEP to require financial assurance for long-term management of mine-impacted waters on private land. In addition, Nevada has

adopted more detailed criteria which take into account all elements and features of mine sites including, but not limited to, the three dimensional structure of site features, the hydrologic data in the area of the mine, and the geologic structures of the mine site location. Nevada's program also offers broader protection by requiring financial assurance for monitoring and cleanup of pollutants not listed as CERCLA hazardous substances, including sulfate and total dissolved solids. The program also offers necessary flexibility for regulators to adjust design criteria, as needed, to ensure safety and stability at each mine site, including designs for mine construction, operation, corrective action, reclamation and closure. Because many of Nevada mines operate on public lands, NDEP, the Bureau of Land Management, and the United States Forest Service have entered into Memoranda of Understanding to ensure consistency and coordination during implementation of mine financial assurance requirements between private and public lands. In sum, Nevada has developed a detailed, comprehensive, and protective program that has been successfully implemented and enforced and that should provide EPA with assurance that operating hardrock mines in Nevada do not pose any undue risk of releases, and have adequate financial assurance if any releases do occur. As evidence of this, modern Nevada mines that commenced operation after the promulgation of Nevada mine reclamation financial assurance regulations in 1991 have not required public funding for proper closure and reclamation.

2. **EPA's proposed rulemaking is not consistent with the degree and duration of risk posed by hazardous substances at operating Nevada hardrock mines**

The Comprehensive Environmental Response Compensation and Liability Act (CERCLA) § 108(b)(1) requires EPA to promulgate rules for financial assurance that are consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances. The proposed rulemaking does not adequately characterize the degree and duration of risk of hazardous substance at active Nevada hardrock mining operations, and as a result does not justify the level of financial assurance required by the proposed rule.

EPA has interpreted that this section of the statute does not require any "precise association with a risk calculation."[1] However, EPA's underlying review of risks posed by operating mines in the rulemaking docket does not fairly document the level of risk posed by operating Nevada mines. The rulemaking references a limited number of release occurrences at operating mines that had no previous significant legacy mining issues.[2] However, supporting documentation for the proposed rulemaking merely documents that such releases have occurred at operating hardrock mines in Nevada, not that they have occurred with such regular occurrence or magnitude to justify the level of financial assurance required by the proposed rule.

[1] 82 Fed. Reg. at 3460.
[2] 82 Fed. Reg. at 3471.

As our enclosed comments and supporting information substantiate, hazardous substance releases that have occurred at operating Nevada hardrock mines have been or are being addressed in a manner that is protective of human health and the environment. Additionally, Nevada's existing regulations and financial assurance requirements provide NDEP more than adequate authority to address and require financial assurance for hazardous substance releases for the entire scope of the thirteen response categories at active hardrock mines when necessary. Therefore, consistent with the degree and duration of risk posed, no additional financial assurance under CERCLA is warranted for operating Nevada hardrock mines beyond what is already required under Nevada's program.

3. **EPA's proposed rulemaking does not establish level of financial responsibility at an appropriate level based on the payment experience of the Hazardous Substance Superfund ("Fund").**

CERCLA § 108(b) (2) requires EPA to promulgate rules for financial assurance that protect against an appropriate level of risk based on the payment experience of the Fund. Nevada and EPA have identified a number of pre-regulation legacy mines in Nevada with releases that have been or are being addressed through both federal and state response authorities. However, the payment experience of the Fund on modern Nevada mines without legacy components has not been documented, is not accurately reflected in the proposed rulemaking, and does not support the level of financial responsibility in the proposed rule.

4. **EPA's proposed rulemaking would unnecessarily jeopardize Nevada's program, which financially assures effective, efficient, and protective mine reclamation, closure and cleanup in Nevada.**

CERCLA § 114(d) will govern the interrelationship between regulations promulgated by EPA under CERCLA § 108(b) and Nevada's existing financial assurance regulations. That statute provides as follows:

> Except as provided in this subchapter, no owner or operator of a vessel or facility who establishes and maintains evidence of financial responsibility in accordance with this subchapter shall be required under any State or local law, rule, or regulation to establish or maintain any other evidence of financial responsibility in connection with liability for the release of a hazardous substance from such vessel or facility. Evidence of compliance with the financial responsibility requirements of this subchapter shall be accepted by a State in lieu of any other requirement of financial responsibility imposed by such State in connection with liability for the release of a hazardous substance from such vessel or facility.[3]

[3] 42 U.S.C. § 9614(d).

Under the Supremacy Clause of the U.S. Constitution, state laws that "interfere with, or are contrary to" federal law are invalid.[4] Therefore, to the extent that EPA's financial assurance program overlaps or is duplicative of Nevada's existing program, the Nevada program is subject to challenge on the basis that it is pre-empted by federal law under CERCLA § 114(d).

This would not be the first time a pre-emption challenge was raised under CERCLA. When CERCLA was passed in 1980, section 114(c) of the Act stated as follows:

> Except as provided in this chapter, no person may be required to contribute to any fund, the purpose of which is to pay compensation for any claims for any costs of response or damages or claims which may be compensated under this subchapter. Nothing in this section shall preclude any State from using general revenues for such a fund, or from imposing a tax or fee upon any person or upon any substance in order to finance the purchase or prepositioning of hazardous substance response equipment or other preparations for the response to a release of hazardous substances which affects such State.[5]

Private entities subsequently filed lawsuits to invalidate state superfund programs on the basis that the programs were pre-empted under this section of CERLCA. The issue of whether CERCLA § 114(c) pre-empted state superfund programs came before the Supreme Court of the United States in *Exxon Corp. v. Hunt*, which involved a challenge to the validity of the New Jersey Spill Compensation and Control Act (Spill Act).[6] In that case, the Court held that "[t]hose parts of the [Spill Act] that permit Spill Fund expenditures beyond the mandatory state share for remedial costs for sites on the National Priorities List, or for removal costs that are eligible for Superfund compensation under the terms of the NCP [National Contingency Plan], are pre-empted by § 114(c)."[7] The Court's interpretation of CERCLA § 114(c) invalidated the Spill Act, in part, as to expenditures for remedial costs within the scope of CERCLA.[8] However, authorized expenditures under the Spill Act that were outside the scope of CERCLA were not pre-empted by section 114(c) and continued to remain in effect as long as they were severable from the pre-empted sections.[9]

This may have created a piecemeal approach to hazardous substance cleanup if Congress had not repealed CERCLA § 114(c) in 1986 under the Superfund Amendments and Reauthorization

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[4] *Hillsborough Cnty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 712 (1985).
[5] 42 U.S.C. § 9614(c) (1980).
[6] 475 U.S. 355, 361 (1986).
[7] *Id.* at 376.
[8] *Id.* at 375-76.
[9] *Id.* at 376.

Act.[10] The reasoning for this repeal was documented in the Senate Committee on Environment and Public Works report, which stated as follows:

> Clarification of section 114(c) will allow the State to move forward and develop the tax mechanisms necessary for meeting the growing needs for response to hazardous substances releases and participation in the Superfund program, as well as for maintaining State hazardous waste programs.
>
> The primary effect of the amendment will be to remove a potential barrier to the creation of State superfund programs. The amendment may result in an increase in the number and pace of hazardous substance response actions undertaken or partially funded by States, since States will be able to raise funds to assist such hazardous substance response.[11]

Given this historical context, and to address identified deficiencies in the proposed rule, in the event EPA decides to move forward with a final rulemaking, it must modify the rule to meet the statutory requirements of CERCLA § 108(b) (1) & (2) to provide for complete program exemption for States, like Nevada, with existing comprehensive regulatory and financial programs. To meet these statutory requirements and protect Nevada's established and successful mining financial assurance program from pre-emption challenges and a duplicative regulatory structure, EPA would need to modify the proposed rule to include an option for complete program exemption.

Program exemption in place of a separate federal program will have at least three primary benefits. First, exemption will prevent disruption to Nevada's successful financial assurance program.

Second, program exemption will advance sound public policy. As described above, Congress repealed CERCLA § 114(c) to increase the number and pace of response actions by encouraging states to develop programs that undertake or to fund hazardous substance cleanup. By providing for program exemption, EPA will equally encourage states to develop financial assurance programs which could increase state resources dedicated to mine site cleanup and reclamation and conserve federal resources that would have otherwise been dedicated to federal program oversight in those states. This would also allow states to select and implement environmental requirements appropriate for varying hydrologic settings (e.g. the arid west vs. the wet southeast). In Nevada, the administration and personnel costs to operate its financial assurance program are fully funded by revenue generated from permit fees assessed against mining operators. This model ensures that Nevada's program receives a sustainable source of

[10] P.L. 99-499 (1986).

[11] S. Rep. No. 11, 99th Cong., 1st Sess. 59, 60 (1985).

funding for oversight costs. For these reasons, providing an exemption for programs such as Nevada's is in the public's best interest.

Third, program exemption will avoid regulatory complexities that result from pre-emption disputes. As the holding *Exxon* instructs, Nevada's financial assurance program is vulnerable to pre-emption challenges to the extent that it conflicts with the proposed federal program. However, the parts of Nevada's program that are not covered by CERCLA will survive any successful pre-emption challenge and result in a piecemeal approach to federal and state regulatory oversight of financial assurance requirements. By preserving state regulatory oversight through program exemption, EPA would maintain a clear, effective, and efficient regulatory approach to financially assuring hardrock mine cleanup and reclamation in Nevada.

EPA expressed several concerns with the concept of program deferral in the preamble to the proposed rule[12] that may also apply to program exemption. Several of the concerns are common to general environmental program implementation and oversight, including if the program is administered entirely within EPA, because it is not clear the EPA Superfund program has or will develop the resources necessary for field inspection and verification of mine financial assurance compliance. As they pertain to Nevada and the hardrock mining financial assurance program, we believe these concerns are adequately addressed.

Nevada's mining financial assurance program has several safeguards that should allay concerns with program exemption, including:

- Public notice of proposed Water Pollution Control and Mine Reclamation Permits and bonding amounts, prior to mine operation or major mine modification, and public review and appeal of these actions to the State Environmental Commission;
- Oversight by the Mining Oversight and Accountability Commission under Nevada Revised Statutes Chapter 514A;
- Program and financial audits from the State Legislative Counsel Bureau;
- Quarterly on-site state inspections to ensure compliance; and
- Public records availability.

Together with NDEP's extensive experience and demonstrated technical expertise, these additional measures assure transparency, accountability, and consistency in Nevada's program.

NDEP encourages EPA to review the attached support document, which provides a detailed review of the protectiveness of Nevada's program. NDEP provided the attached support document to interested Nevada stakeholders for review, including the Nevada Mining Association and Great Basin Resources Watch, both of whom have considerable experience with the Nevada mine regulation programs. Where feasible and determined to be warranted, NDEP revised the document to address input received from these parties.

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[12] 82 Fed. Reg. at 3469

In closing, NDEP believes this rulemaking presents a tangible opportunity for EPA to demonstrate its commitment to cooperative federalism and to acknowledge the expertise and competence of state programs in hardrock mine financial assurance regulation.

NDEP is available to meet with the EPA rulemaking team to discuss our comments in further detail. Please contact me at 775-687-9373 or glovato@ndep.nv.gov at your convenience.

Sincerely,

Greg Lovato
Administrator

Attachment

ec: (w/ Attachment)
Kenneth E. Wagner, Office of the Administrator, US Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, MC 1101A Room 3309A WJCN, Washington, DC
Bradley Crowell, Director, NV Department of Conservation and Natural Resources
Jennifer Carr, Deputy Administrator, NDEP
Joe Sawyer, Chief, Bureau of Mining Regulation and Reclamation, NDEP
Frederick "Rick" Perdomo, Senior Deputy Attorney General, Nevada Office of the Attorney General
Marci Todd, Acting Director, BLM NV State Office, 1340 Financial Blvd., Reno, NV 89502
Bill Dunkelberger, Forest Supervisor, Humboldt Toiyabe National Forest, USFS, 1200 Franklin Way, Sparks, NV 89431
Dana Bennett, President, Nevada Mining Association, 201 W. Liberty Street, Suite 300, Reno, NV 89501
John Hadder, Director, Great Basin Resources Watch, P.O. Box 207, Reno, NV, 89504
Greg Conrad, Executive Director, Interstate Mining Compact Commission, 445A Carlisle Drive, Herndon, VA 20170
Rich Perry, Administrator, NV Division of Minerals, 400 W. King St., Ste. 106, Carson City, NV 89703

To: Barnes Johnson (Johnson.Barnes@epa.gov)[Johnson.Barnes@epa.gov]
Cc: Huggins, Richard[huggins.richard@epa.gov]; Meghan Radtke (Radtke.Meghan@epa.gov)[Radtke.Meghan@epa.gov]; Nisbett, Deana[nisbett.deana@epa.gov]
From: Huggins, Richard
Sent: Fri 3/17/2017 11:59:59 AM
Subject: #Daily Materials for Barnes 3/17/17
To Dos 3/17/17
orcr_weekly_3-20-17.docx
Options for modifying the hrm rule 23.docx
Options for modifying the hrm rule 20 Attachment 5.docx
OptionsSelection.Final Rule.draft2.March142017.docx
Passback-Letter-from-ECOS-3_1_17-FINAL.PDF

Materials:

To Dos

Weekly

108 b Options Paper

108 b agenda:

- □□□□□□□□ AA Paper
- □□□□□□□□ Prep for Bromberg meeting
- □□□□□□□□ Report to the court
- □□□□□□□□ IMCC
- □□□□□□□□ Teams update
- □□□□□□□□ Controls update
- □□□□□□□□ Budget fact sheet?

Read and Review:

Earth Day one pager OP_EarthDay2017_31517.docx

e-manifest Options selection memo

ECOS letter on President's Budget

Richard Huggins Jr.

Senior Special Assistant

Office of Resource Conservation and Recovery

U.S. Environmental Protection Agency

Desk: 703-308-0017 iPhone: Ex. 6 - Personal Phone

To: Gerain Cogliano (Cogliano.Gerain@epa.gov)[Cogliano.Gerain@epa.gov]
Cc: Pease, Michael[pease.michael@epa.gov]; Huff, Mark J[huff.markj@epa.gov]; Johnson, Barnes[Johnson.Barnes@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Barbara Foster[Foster.Barbara@epa.gov]; Stachowiak, Robert (Stachowiak.Robert@epa.gov)[Stachowiak.Robert@epa.gov]
From: Huggins, Richard
Sent: Wed 1/11/2017 4:32:15 PM
Subject: RE: CERCLA 108(b) Docket

Gerain, see below for the email from the stakeholder about the incorrect link to the docket.

As mentioned on the phone, when you are on the FR page for the HRM rule, the docket link they have sends you to : Recently posted EPA Rules and Notices from FR Feed. Furthermore the entire box on the FR page that says enhanced content (green) is wrong. Here is the correct link:

https://www.regulations.gov/docket?D=EPA-HQ-SFUND-2015-0781

Richard Huggins Jr.

Senior Special Assistant

Office of Resource Conservation and Recovery

U.S. Environmental Protection Agency

Desk: 703-308-0017 iPhone: Ex. 6 - Personal Privacy cell phone

From: Huggins, Richard
Sent: Wednesday, January 11, 2017 11:15 AM
To: Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Cc: Pease, Michael <pease.michael@epa.gov>; Huff, Mark J <huff.markj@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>
Subject: RE: CERCLA 108(b) Docket

The link is wrong on the FR page, here is the correct docket link

https://www.regulations.gov/docket?D=EPA-HQ-SFUND-2015-0781

Richard Huggins Jr.

Senior Special Assistant

Office of Resource Conservation and Recovery

U.S. Environmental Protection Agency

Desk: 703-308-0017 iPhone: Ex. 6 - Personal Privacy cell phone

From: Sasseville, Sonya
Sent: Wednesday, January 11, 2017 10:36 AM
To: Sweeney, Katie <KSweeney@nma.org>; Foster, Barbara <Foster.Barbara@epa.gov>; Pease, Michael <pease.michael@epa.gov>
Cc: Johnson, Barnes <Johnson.Barnes@epa.gov>; Bridgeford, Tawny <TBridgeford@nma.org>
Subject: RE: CERCLA 108(b) Docket

Katie, we are checking into this and will get back to you.

Sonya

From: Sweeney, Katie [mailto:KSweeney@nma.org]
Sent: Wednesday, January 11, 2017 10:17 AM
To: Foster, Barbara <Foster.Barbara@epa.gov>; Pease, Michael <pease.michael@epa.gov>
Cc: Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Bridgeford, Tawny <TBridgeford@nma.org>
Subject: CERCLA 108(b) Docket

Barbara and Mike,

To follow up on the voicemails I left earlier today, there is definitely something amiss with the docket for the Hardrock Mining CERCLA 108(b) rule as accessed on the Regulations.gov website. If you click on the proposed rule and then click on view all documents in this docket – more than 1400 documents show up. Most do not appear to be related to the proposed rule and in fact, some appear to be separate rulemakings altogether. Also, if you try to search the docket for documents that are supposed to be there (e.g. EPA's Nov. 2016 Memorandum to the Record: Releases from Hardrock Mining Facilities), those documents cannot be found. Please advise as to what is being done to fix this and when the correct documents will be available. Obviously, with only a 60-day comment period, the industry needs to begin review as soon as possible.

Thanks for your attention to this matter.

Katie

Katie Sweeney
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National Mining Association
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Phone: (202) 463-2600
Direct: (202) 463-2627
KSweeney@nma.org

DEADLINES

Signature	Hardrock Mining	Class 1	Class 2	Class 3
Proposal	December 1, 2016	July 2, 2019	December 4, 2019	December 1, 2022
Final	December 1, 2017	December 2, 2020	December 1, 2021	December 4, 2024

From: Krahe, Joseph
Location: Call-in number: **Ex. 6 - Personal Privacy conference line**
Importance: Normal
Subject: Accepted: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

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March 29, 2016

Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W. (1101A)
Washington, D.C. 20460

Dear Administrator McCarthy:

Many western states rely on the hard rock mining industry for economic development and employment. Western states where mining occurs have staff dedicated to mine permitting and compliance. They ensure that hard rock mining facilities are designed, constructed and operated to minimize risks to the environment and ensure reclamation. State regulators ensure proper mine closure on both private and public lands when the time comes. They coordinate with federal land agencies to ensure bonding is adequate.

A recent D.C. Circuit court decision approved a settlement agreement negotiated by the Environmental Protection Agency (EPA) and several non-governmental organizations. It requires EPA to publish a notice of proposed rulemaking pursuant to section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) for the hard rock mining industry by December 1, 2016.[1]

Western Governors are concerned that EPA may impose additional financial assurance requirements on the hard rock mining industry. As stated in section A(3) of WGA Policy Resolution 2014-07, *Bonding for Mine Reclamation* (attached to these comments and incorporated by reference), western states have developed regulatory bonding programs to evaluate and approve financial assurance requirements for hard rock mining operations. Each western state has also developed detailed design, construction, operating, monitoring and permitting standards for hard rock mining facilities.

Governors have specific concerns with the potential introduction of EPA bonding requirements including:

- *Duplicative Federal Regulations* – Proposed federal requirements would duplicate existing state financial assurance requirements and could preempt existing state requirements for hard rock mining operations. They would require compliance with federal design, construction and

[1] Order *In re: Idaho Conservation League, et al.*, No. 14-1149 (D.C. Cir. Jan. 29, 2016).

operating standards, to the exclusion of proven state standards. These additional financial assurance requirements would impair western economies and the hard rock mining industry in America. Section B(2) of WGA Policy Resolution 2015-09, *National Minerals Policy*, reinforces the importance of the mining industry to both local and national economies. Reliable supplies of American minerals play a critical role in meeting national security needs.

- *Inappropriately Hampering Effective State Programs* – EPA has not indicated to states what, if any, problems or gaps the agency perceives in state financial assurance requirements. EPA has likewise failed to indicate that modern, state-driven standards necessitate any alternative program. Western states have the staff and expertise necessary to ensure environmental compliance, reclamation and site closure. Reclamation and closure bonding calculations are based on the unique circumstances of each mining operation, the local ecology and post reclamation land use. Local expertise allows for informed decisions on financial assurances required – based on real values over the life of the mine and after its closure. Many of the hard rock mines in the Western U.S. are on private or public lands, and at times on both. Only state regulatory agencies can oversee bonding and closure on sites with dual ownership and split mineral estate.

- *Failure to Recognize States' Primacy Role in Water Management* – Hard rock mine reclamation and bonding are required to protect water resources. States are identified under the Clean Water Act as the primary regulators of water. It is appropriate to recognize the lead and primary role of states in regulating water-related impacts incident to mine reclamation – including associated bonding requirements.

The referenced D.C. Circuit court order directed EPA to determine by December 1, 2016 whether to issue notice of proposed rulemaking on CERCLA 108(b) financial assurance requirements for (a) chemical manufacturing; (b) petroleum and coal products manufacturing; and (c) electric power generation, transmission and distribution industries. We note similar concerns regarding EPA's introduction of bonding requirements for these industries.

Prior to publishing a notice of proposed rulemaking for any of these industries EPA should consult with Governors and engage state regulators. This should occur early in the process – before rulemaking. Substantive consultation during development of rules or decisions should occur well before formal rulemaking is launched. This should include a review by Governors and state regulators of any proposals before they are sent to the White House Office of Management and Budget for finalization.

As part of early consultation on any proposals, we request that EPA provide Governors and state regulators the following:

- A detailed state consultation timeline and plan for obtaining individual state comments from Governors and state regulators;
- All technical and scientific materials and analyses used to support any proposed rule, denoting whether any such materials were peer-reviewed;
- A statement indicating how the EPA solicited ideas about alternative methods of compliance and potential flexibilities in order to reduce the economic burden placed on affected entities;
- A statement indicating how EPA solicited information from the Governors and state regulators as to whether the proposed rule will not duplicate similar state requirements;
- A copy of a federalism assessment or the reason why EPA did not complete a federalism assessment;
- Explanation of the reason existing state programs are insufficient to address the concerns and an analysis of any conflicts in the proposed rule with state programs; and
- Analysis of financial assurance instruments that would satisfy any proposed EPA requirement.

Western states are committed to environmental protection and to responsible and comprehensive regulation and bonding for hard rock mining operations. Western Governors urge you to consider the concerns raised here.

Sincerely,

Matthew H. Mead
Governor of Wyoming
Chairman, WGA

Steve Bullock
Governor of Montana
Vice Chair, WGA

cc: Honorable Lisa Murkowski, Chairwoman, Senate Energy & Natural Resources Committee;
Honorable Maria Cantwell, Ranking Member, Senate Energy & Natural Resources Committee;
Honorable Fred Upton, Chairman, House Energy & Commerce Committee;
Honorable Frank Pallone, Ranking Member, House Energy & Commerce Committee

WESTERN GOVERNORS' ASSOCIATION

Western Governors' Association
Policy Resolution 2014 - 07

Bonding for Mine Reclamation

A. BACKGROUND

1. All Western states in which mining occurs have staff dedicated to ensuring that ongoing mine operations develop and follow appropriate reclamation plans.

2. An important component of a state's oversight of mine reclamation is the requirement that mining companies provide financial assurances in a form and amount sufficient to fund required reclamation if, for some reason, the company itself fails to do so. These types of financial assurances, often referred to generically as "bonding," protect the public from having to finance reclamation and closure if the company goes out of business, or fails to meet its reclamation obligation.

3. All Western states have developed regulatory bonding programs to evaluate and approve the financial assurances required of mining companies. The states have developed the staff and expertise necessary to calculate the appropriate amount of the bonds, based on the unique circumstances of each mining operation, as well as to make informed predictions of how the real value of current financial assurance may change over the life of the mine, and even post-closure.

4. Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9608(b), requires EPA to promulgate financial responsibility requirements for industrial facilities that take into account the risks associated with their use and disposal of hazardous substances. After the Sierra Club sued EPA for failing to timely comply with this section of CERCLA, a federal District Court in California ordered EPA to do so.[1]

5. In response to the Court's ruling, EPA announced in July, 2009 that it had selected hard-rock mining as the first industry sector for which it would undertake an analysis of whether federal bonding requirements under CERCLA Sec. 108[2] were needed.

6. Since EPA's 2009 announcement, Western Governors have expressed concern that any bonding requirements that EPA may develop for the hard-rock mining industry could be duplicative of state requirements, and could even pre-empt them entirely. The Governors have also questioned whether EPA has the resources to implement

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1 *See* Sierra Club v. Johnson, 2009 WL 2413094 (N.D. Cal. 2009)

2 *See* 74 Fed. Reg. 37213 (July 28, 2009).

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reclamation bonding for hard-rock mines, since bond calculations usually reflect very site-specific reclamation needs, tasks and costs.

7. State mining agencies provided detailed comments to EPA in August 2011 on the structure and extent of each state's hard rock mining financial assurance requirements. EPA has yet to indicate if or what problems or gaps the agency has found in existing state requirements. Recently, EPA indicated that a rulemaking on this issue is not likely for at least another year.

B. GOVERNORS' POLICY STATEMENT

1. Because mine reclamation is needed primarily to protect adjacent waters, it is both appropriate and consistent with Congressional intent to recognize the states' lead and primary role in regulating water related impacts of mine reclamation, including the associated bonding. See Clean Water Act, Sec. 101(b), 33 U.S.C. § 1251(b).

2. Western states have a proven track record in regulating mine reclamation in the modern era – including for hard rock mines -- having developed appropriate statutory and regulatory controls, and are dedicating resources and staff to ensure responsible industry oversight.

3. In contrast, EPA currently has no staff dedicated to oversight of mine reclamation, or to the approval of bonding associated with mine reclamation. As a consequence, if EPA proceeds to promulgate bonding requirements for the hard-rock mining industry under CERCLA Sec. 108, it will have to create a new federal regulatory program -- an unnecessary investment of federal funds -- at a time when the federal government is trying to get its fiscal house in order.

4. Western Governors believe that states currently have financial responsibility programs in place that are working well, and that functional programs should not be duplicated or pre-empted by any program developed by EPA pursuant to Section 108(b) of CERCLA.

C. GOVERNORS' MANAGEMENT DIRECTIVES

1. The Governors direct the WGA staff, where appropriate, to work with Congressional committees of jurisdiction and the Executive Branch to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to develop, as appropriate and timely, detailed annual work plans to advance the policy positions and goals contained in this resolution. Those work plans shall be presented to, and approved by, Western Governors prior to implementation. WGA staff shall keep the Governors informed, on a regular basis, of their progress in implementing approved annual work plans.

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Interstate Mining Compact Commission

445-A Carlisle Drive, Herndon, VA 20170
Phone: 703/709-8654 Fax: 703/709-8655
Web Address: www.imcc.isa.us E-Mail: gconrad@imcc.isa.us or bbotsis@imcc.isa.us

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ASSOCIATE MEMBERS

GOV. JOHN HICKENLOOPER
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New Mexico

EXECUTIVE DIRECTOR
GREGORY E. CONRAD

May 3, 2016

The Honorable Gina McCarthy
Administrator
Office of the Administrator – Mail Code 1101A
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator McCarthy:

Please find attached a resolution that was unanimously adopted by the member states of the Interstate Mining Compact Commission at its recent annual meeting concerning a rulemaking being undertaken by the U.S. Environmental Protection Agency (EPA) concerning financial assurance requirements under Section 108(b) of the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA). We appreciate the effective working relationship that we have enjoyed with the Office of Land and Emergency Management and look forward to addressing the several concerns set forth in the resolution over the coming months, particularly with regarding to federalism and preemption.

Sincerely,

Gregory E. Conrad
Executive Director

cc. Barnes Johnson

"Serving the States for Over 40 Years"

Resolution

Interstate Mining Compact Commission

Re. Financial Assurance for Hardrock Mine Reclamation

BE IT KNOWN THAT:

WHEREAS, the development of our Nation's minerals necessarily involves the surface disturbance of the land and often results in impacts to air and water resources; and

WHEREAS, state and national laws provide for the reclamation of land disturbed by mining and for the protection of human health and the environment related to those disturbances; and

WHEREAS, with regard to hardrock and noncoal minerals development, state governments have largely taken the lead in fashioning regulatory programs that address environmental protection and reclamation requirements; and

WHEREAS, an important component of state regulatory programs is the requirement that mining companies provide financial assurances in a form and amount sufficient to fund required reclamation if, for some reason, the company fails to do so in accordance with the state program. These types of financial assurances, often referred to as bonding, protect the public from having to finance reclamation and closure if the company goes out of business or fails to meet its reclamation obligation; and

WHEREAS, all states have developed regulatory bonding programs to evaluate and approve the financial assurances required of mining companies. States have also developed the staff and expertise necessary to calculate the appropriate amount of bonds, based on the unique circumstances of each mining operation, and to make informed predictions of how the real value of current financial assurance may change over the life of the mine, including post-closure; and

WHEREAS, Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C Sec. 9608(b), requires that the U.S. Environmental Protection Agency (EPA) consider promulgating financial responsibility requirements for industrial facilities that take into account the risks associated with their use and disposal of hazardous substances; and

WHEREAS, pursuant to a federal court decision in California (*Sierra Club v Johnson*, 2009 WL 2413094 (N.D. Cal. 2009)) which ordered EPA to move forward with the rulemaking, EPA announced in July 2009 that it selected hardrock mining as the first industry sector for which it would develop financial responsibility requirements under CERLCA Section 108(b) (74 Fed. Reg. 37213, July 28, 2009); and

WHEREAS, pursuant to a D.C. Circuit court decision (Order *In re: Idaho Conservation League, et al.*, No. 14-1149 (D.C. Cir. Jan. 29, 2016)) approving a settlement agreement between the EPA and several non-governmental organizations, EPA is required to publish a notice of proposed rulemaking regarding CERCLA Sec. 108(b) financial assurance for the hardrock mining industry by December 1, 2016; and

WHEREAS, in preparation for its rulemaking, EPA undertook an analysis of reclamation bonding requirements in approximately 20 state regulatory programs throughout the U.S.; and

WHEREAS, since the initiation of EPA's rulemaking initiative, a number of IMCC member states have expressed concern than any bonding requirements that EPA may develop for the hardrock and noncoal mining industry could be duplicative of state requirements, and could even preempt them entirely under EPA's reading of Section 114(d) of CERCLA. The states have also questioned whether EPA has the resources to implement reclamation bonding for hardrock and noncoal mines, since bond calculations usually reflect site-specific reclamation needs and costs; and

WHEREAS, the states are concerned that EPA may be attempting to fill alleged "gaps" in state reclamation bonding programs that either may not exist or that are unrelated to the purpose of a reclamation bonding program;

NOW THEREFORE BE IT RESOLVED THAT THE INTERSTATE MINING COMPACT COMMISSION:

Recognizes the states' lead and primary role in regulating the environmental impacts associated with hardrock and noncoal mining operations within their borders, including financial assurance requirements for reclamation; and

Affirms that IMCC member states are committed to environmental protection and to responsible and comprehensive regulation and bonding for hardrock mining operations; and

Affirms that the states have a proven track record in regulating mine reclamation, having developed appropriate statutory and regulatory controls and dedicated resources and staff to ensure full and effective implementation of their regulatory programs; and

Believes that the states currently have financial responsibility programs in place that are working well and as such should stand in-lieu of federal requirements under Section 108(b) of CERCLA; and

Recommends that an independent, impartial body (such as the National Academy of Sciences) conduct a study to review financial responsibility requirements under state

regulatory programs to determine their sufficiency, to identify any serious gaps, and to recommend whether a federal rulemaking on the matter is needed; and

Urges the EPA to engage with state regulators through the IMCC prior to publishing a notice of proposed rulemaking regarding CERCLA Sec. 108(b) financial assurance for the hardrock mining industry, which should include substantive consultation with and provision of proposals to state regulators before formal rulemaking is launched; and

Requests that EPA provide to state regulators the following: a detailed state consultation timeline and plan for obtaining individual state comments; all technical and scientific materials and analyses used to support any proposed rule, denoting whether any such materials were peer-reviewed; a statement indicating how the EPA solicited ideas about alternative methods of compliance and potential flexibilities in order to reduce the economic burden placed on affected entities; a statement indicating how EPA solicited information from state regulators as to whether the proposed rule will duplicate similar state requirements; a copy of a federalism assessment or the reason why EPA did not complete a federalism assessment; explanation of the reason existing state programs are insufficient to address financial assurance concerns and an analysis of any conflicts in the proposed rule with state programs; and an analysis of financial assurance instruments that would satisfy any proposed EPA requirement

Issued this 20th day of April, 2016

ATTEST:

Gregory E. Conrad

Executive Director

American Exploration & Mining Association

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June 1, 2016

Lanelle Wiggins
RFA/SBREFA Team Leader
US EPA Office of Policy
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

Linda Barr
Economist
US Environmental Protection Agency
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

Sent via email

Re: CERCLA 108(b) Financial Responsibility SBREFA Pre-panel Outreach

Dear Lanelle and Linda:

This letter is written on behalf of the hardrock mining SERs and concerns the pre-panel phase of the CERCLA 108(b) SBREFA process and the introductory meeting/conference call on Thursday June 9, 2016.

I have been in communication with the SERs and confirmed that they have reviewed and studied the slides presented at the May 17, 2016 public webinar. I also have confirmed that the SERs have reviewed, studied and analyzed the SBREFA slides attached to your May 27, 2016 email advising of the pre-panel introductory meeting. On behalf of the SERs, we are requesting that EPA skip or dispense with the slide presentation and, after introductions, move into addressing questions and comments on the slides and the proposed rule. We believe this will ensure that the introductory meeting is productive, useful for all parties, and an efficient use of everyone's limited time.

Our examination and study of the SBREFA slides raises several questions and a need for additional information which we would like answered/provided prior to the June 9th meeting. These questions and information requests, identified by slide, are attached to this letter. The SERs would appreciate receiving answers and the requested information on or before June 7, 2016. The SERs will not be able to properly fulfill their role as contemplated by SBREFA without the answers and information requested. Receiving answers to these questions and the information requested prior to the June 9 meeting will ensure a more productive, efficient and useful introductory meeting.

In addition, the SERs have developed a list of questions and information absolutely essential to fulfilling the role of SERs under SBREFA in the Small Business Advocacy Review Panel (SBAR) process. A list of those questions and additional information needed also is attached to this letter as Attachment II.

SER Helper

The SERs request approval to bring a SER helper to the introductory meeting to assist the SERs in their review, analysis and comment on the proposed rule. Identifying the proper elements of a CERCLA 108(b) financial assurance responsibility rule and calculating financial assurance is a highly technical, highly specialized field. While the SERs represent a number of important fields of responsibility with respect to environmental management of mine sites and implementing existing federal and state financial assurance requirements, the SERs do not possess the knowledge and expertise to develop and analyze models and the underlying statistical analysis and formulae that make up the model. Therefore, the SERs request approval to engage a SER helper in the CERLA 108(b) Financial Responsibility SBAR process who is an expert in modeling and calculating financial assurance.

Thank you for your timely consideration of these requests. I am available to discuss this with you prior to the June 9 meeting. My telephone number is 509-624-1158 x16; email lskaer@miningamerica.org.

Yours truly,

Laura Skaer

Laura Skaer
Executive Director

Attachments

cc: Sonja Sasseville, Acting Director Program Implementation and Information Division, US Environmental Protection Agency.
Barbara Foster, CERCLA 108(b) Rule Writing Team, US Environmental Protection Agency
Kevin Bromberg, SBA Office of Advocacy
Tayyaba Waqar, SBA Office of Advocacy
Danielle Jones, Office of Management and Budget
All SERs

ATTACHMENT I to June 1 SER letter to EPA

SER Questions Concerning the May 24, 2016 SBREFA Slides

Slide 3 - Background: CERCLA 108(b) Financial Responsibility

* EPA calculations show that, through FY2011, the Agency had spent approximately $4.6 billion to clean up hard rock mines and mineral processors.

Please provide detail for this statement by identifying by name and location the hardrock mine sites and mineral processor sites, the amount spent by EPA at each site, the dates when those monies were spent, and provide a copy of the spreadsheets or documents used to calculate or arrive at $4.6 billion. Also, identify which of those sites are on the NPL.

* EPA also intends for the rule to create financial incentives for improved mining practices that reduce financial responsibility costs where existing practices ultimately may also help reduce risks and costs to the Superfund program.

Question 1 -- Please identify the improved mining practices EPA believes will be incentivized by a CERCLA 108(b) financial responsibility rule.

Question 2 --What mining practices would be different under a CERCLA 108(b) rule than under current BLM, USFS, states' mining and financial assurance regulations?

Slide 6 – CERCLA 108(b) Financial Responsibility Proposed Rule Structure

* CERCLA is a response program that addresses CERCLA Section 107 liabilities – response costs, natural resource damages (NRD), and health assessments – and is distinct from closure and reclamation requirements of federal and state mine permit programs.

The federal land management agency regulations (BLM 43 CFR 3809 regulations (3809.420 and 3809.500 et. seq.), the U.S. Forest Service (USFS) 36 CFR 228A regulations (228.8 and 228.13)),and the states mine regulatory and financial assurance programs (*See* Western Governors' Association (WGA) letter to EPA Administrator McCarthy dated March 29, 2016 and Interstate Mining Compact Commission (IMCC) letter dated May 3, 2016)), focus on minimizing risks to the environment and include requirements, among others, for managing solid waste and water, minimizing acid rock drainage, managing cyanide use, ensuring mine operations comply with all applicable environmental laws and regulations, and providing, where appropriate, long term trusts to ensure post closure treatment and maintenance operations to ensure compliance with Clean Water Act standards.

These requirements directly minimize the risk of a future hazardous substance release and ensure money is set aside to financially cover an adverse event if one should happen. These requirements also are working as evidenced by the BLM's and USFS' response to the March 8, 2011 letter from Senator Murkowski that a combined 3,334 mining plans of operations approved

since 1990 and not one of those sites has been placed on the CERCLA NPL. In other words, the BLM, USFS and states' requirements are the "functional equivalent" of a CERCLA 108(b) financial responsibility rule. For example, BLM's 43 CFR 3809 surface management regulations for hardrock minerals provides at §3809.552(c):

> *(c) When BLM identifies a need for it, you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long-term treatment to achieve water quality standards and for other long term, post-mining maintenance requirements. The funding must be adequate to provide for construction, long-term operation, maintenance, or replacement of any treatment facilities and infrastructure, for as long as the treatment and facilities are needed after mine closure. BLM may identify the need for a trust fund or other funding mechanism during plan review or later.*

Question 1 --In view of the fact the federal land management agencies' and states' mine regulatory and financial assurance programs address more than closure and reclamation, please explain how addressing CERCLA § 107 liabilities are "distinct from closure and reclamation requirements of federal and state mine permit programs."

Slide 10 – A Preliminary Clarification: What the Rule Does *Not Do*

As mentioned above, both WGA and IMCC disagree with EPA's assertion that proposed CERCLA 108(b) financial assurance requirements distinctly different from existing state and federal requirements for hardrock mining facilities.

Question 1 -- How is EPA going to address the significant concerns raised by the WGA and IMCC in its proposed rule? It appears from the information presented at the May 17, 2016 webinar and in the SBREFA slides that these concerns have largely gone unaddressed.

Question 2 -- Has EPA this year consulted with the USFS, BLM, or other relevant federal agency/department on the Congressional directive to complete a plan to avoid duplication with existing federal regulations? Will there be an interagency review of any proposal before it is finalized so the USFS, BLM, the Nuclear Regulatory Commission and any other appropriate federal department or agency has an opportunity to review the proposal and provide comments before it is finalized?

Question 3 -- What financial responsibility requirements will be different under a CERCLA 108(b) rule than under current BLM, USFS and state requirements?

Question 4 -- How is EPA going to factor in reductions for compliance with existing state and federal laws and regulations? For example, if a facility has a financial assurance instrument that covers $50 million in long-term water quality treatment and monitoring, will EPA reduce the CERCLA 108(b) financial assurance requirement commensurate (dollar for dollar) with that other existing obligation?

Slide 11 – Universe of Facilities to be Regulated

* EPA would also include in the proposed rule primary processing activities located at or near the mine site that are under the same operational control as a regulated mine.

Question 1 --Is EPA proposing to apply a CERCLA 108(b) financial responsibility rule to inactive mine operations, either those that are in the process of or have been closed or are co-located with operating facilities?

Question 2 --Does EPA intend to apply a CERCLA 108(b) financial responsibility rule to closed, inactive or abandoned mine site not collocated with an active mine site or facility?

Question 3 --Does processing include beneficiation?

Slides 13 & 14 – Financial Responsibility Scope and Amount

* To determine the amount of financial responsibility required for response costs, the Agency is developing a formula that would identify an amount of financial responsibility to reflect the primary site conditions and characteristics that would affect the costs of removal or remedial action.

Question 1 -- Please provide the formula, details and any spreadsheets EPA will use to determine the amount of financial responsibility that reflects primary site conditions and characteristics and how those primary site conditions and characteristics were determined.

Question 2 -- What equations are built into the spreadsheets? Please identify and list. Please provide a copy of the equations and spreadsheets.

* The formula would assign dollar values for a facility based on facility and unit characteristics (e.g., open pits, waste rock, tailings, heap leach, process ponds, water management, and operations, maintenance, and monitoring).

Question 3 -- What is EPA using as its data source for the formula? Is EPA using mine sites on the NPL? Is EPA using data from active mines sites? How was this data obtained? Please provide a copy of the underlying data. Is EPA using certain databases or documents to pull this information and assign dollar values to the various facilities in the formula? Please identify these sources and provide a copy of the sources and data used to assign dollar values in the formula.

Question 4 -- There are a number of legacy mining and mineral processing sites on the Superfund NPL that involve sites constructed and operated tens to a hundred years prior to modern environmental laws, regulations and financial responsibility requirements. Those sites were not designed, built and operated to minimize impacts to the environment and prevent release of hazardous substances during operation and at closure. EPA in its "Phase 1" study reviewed NPL sites listed during or after 1990 and then confirmed whether the on-site activities occurring during or after 1990 contributed to the contamination. According to EPA:

> The intent of filtering sites in this manner was to control for the effect of 'legacy' waste management practices by removing sites that are on the NPL only because of legacy activity. This step was taken under the assumption that, by 1990, regulatory programs were sufficiently in place to limit the risks posed by some industry practices.

In developing the formula and selecting appropriate data, has EPA again used a similar filtering technique to ensure that legacy sites are not used to develop the formula and the cost inputs, and thus grossly overestimating the liability risk? If not, please explain what type of filtering technique the agency is using in developing the formula.

* The Agency is considering a fixed amount of financial responsibility for health assessment costs and a fixed percent of aggregate financial responsibility for natural resource damages, that would be required at all facilities.

Question 5 -- Health assessment costs and natural resource damages are very site-specific depending on the type of release. How can EPA create a one-size-fits-all amount for these costs when CERCLA 108(b) only allows for financial assurance "consistent with the degree and duration of risk associated" with the various activities on a site? How is EPA going to ground truth these "fixed" and "fixed percent" amounts so as not to violate the statute and impose an unnecessary financial burden on facilities?

Slide 15 – Relationship of Section 108(b) Financial Responsibility to State, Tribal and Local Government Law

* In particular, Section 108(b) financial responsibility is designed to assure that funds are available to pay for CERCLA liabilities, whereas EPA's review of state law financial responsibility requirements to date indicates many are designed to assure compliance with state regulatory requirements, and thus are not "in connection with liability for the release of a hazardous substance" under Section 114(d).

Question 1 --See statements and questions under **Slide 6.** In view of the fact the states' mine regulatory and financial assurance programs address more than closure and reclamation, *i.e.*, minimize adverse impacts to the environment and assure long term water quality, please explain in detail how state mine regulatory and financial responsibility programs are not "in connection with liability for the release of a hazardous substance" under Section 114(d).

Slide 16 - Relationship of Section 108(b) Financial Responsibility to Other Federal Law

* EPA has evaluated the applicability of Section 108(b) requirements at facilities where other federal financial responsibility requirements apply.

Question 1 --Please list the facilities EPA evaluated and include whether the facilities are currently regulated by BLM, USFS, a state or a combination of these.

* EPA believes that Section 108(b) requirements, established to address CERCLA liabilities, are distinct from federal closure and reclamation bonding requirements imposed under other statutes.

Question 2 --*See* statements and questions under **Slide 6.** Please explain in detail how § 108(b) requirements "are distinct from federal closure and reclamation bonding requirements imposed under other statutes."

* It is important to note that EPA intends the Section 108(b) financial responsibility amount to account for environmentally protective practices already in place, including those required by other regulations.

Question 3 --How is EPA accounting for environmentally protective practices required by existing federal and state environmental laws and regulations, including the BLM 3809 regulations, the USFS 228A regulations and applicable state requirements? How is EPA assigning a value to those requirements and practices? How is EPA calculating those reductions? Please provide a copy of the data used to assign values and calculate reductions.

Slide 17 – Market Study

Question 1 --Who has the agency consulted with in the financial and insurance sectors? Please provide the names of individuals and their companies and the dates of those meetings or consultations.

Question 2 --Is EPA continuing that consultation process as it develops the rule? Please provide the date or dates when EPA intends to meet with representatives of the financial and insurance sectors and the names of the representatives and their companies with whom EPA intends to continue the consultation process.

Question 3 --Did EPA provide the insurance, surety, and other appropriate financial sectors with the formula/model EPA is developing, the cost assumptions and calculations, and potential duration of the obligation in advance of writing the draft report? Did EPA seek the advice of these sectors on these details? If not, how is EPA going to ground-truth its report on market capacity? Will EPA be releasing this information to the Senate?

Question 4 --A key component of the rule that will significantly impact the capacity of the market to provide necessary and affordable financial responsibility instruments is the length of time in which a company is obligated to provide financial assurance and when that obligation will cease. For example, a requirement to secure financial assurance for a duration of 10 years past closure is far less onerous than a requirement to secure financial assurance for 30 or 50 years past closure. What timeframes has the agency provided to the financial and insurance sectors for their evaluation of market capacity?

Slide 18 – Financial Responsibility Scope and Amount – HRM Financial Responsibility Formula

* The baseline could then be reduced through demonstrating that current controls at the facility are in place.

Question 1 -- How is EPA determining which controls warrant reductions in the baseline calculation? What sources is EPA using to make these decisions? What are the selection criteria used to extract the data from the sources? How is EPA determining how to calculate the reductions (i.e., how is EPA choosing which technologies get what reduction)?

Question 2 -- Is EPA consulting with industry, the federal land management agencies and the states on the operational controls and best management practices currently used at facilities to ensure the list is inclusive of these controls and practices?

Slide 19 – EPA has identified several categories it is currently analyzing to obtain statistically-derived factors for use in the formula, including components:

Please provide a complete list of the basis and assumptions used to obtain the "statistically-derived factors."

Slide 20 – HRM Financial Responsibility Formula: Examples of Expected Formula Inputs

Question 1 -- How did EPA identify these site features for inclusion in the model? What data sources did EPA use? What are the selection criteria used to extract the data used from the data sources? Is this intended to be a complete and exhaustive list?

Slide 21 - HRM Financial Responsibility Formula: Examples of Expected Formula Reductions

* EPA is looking at current engineering controls as the basis for reductions to the baseline amount

Question 1 -- How is EPA determining which controls warrant reductions in the baseline calculation? What sources is EPA using to make these decisions? How is EPA determining how to calculate the reductions (i.e., how is EPA choosing which technologies get what reduction)?

Question 2 -- Is EPA consulting with industry, BLM, USFS and the states on the operational controls and best management practices currently used at facilities to ensure the list is inclusive of these controls and practices?

Slide 27 - SBA defined Small Mine Example and Slide 28 - SBA defined Small Mine Example compared with Two large Mines Examples

Question 1 --How did EPA calculate the amount of CERCLA 108(b) financial responsibility prior to giving credit for engineered controls and best practices? Were those amount obtained from engineering handbooks? If so, please list the handbooks used.

Question 2 --We understand EPA has identified 64 mining and mineral processing sites from which cost response data was obtained. Please identify those sites and the selection criteria used to identify those sites. How many of those sites are on the NPL? Which sites are mining sites? Which sites have co-located mineral processing or beneficiation activates? Which sites, if any, are stand-alone mineral processing of beneficiation sites?

Question 3 -- Please describe in detail how EPA came up with the credit reductions for best practices? What data sources were used and how are the calculations done? What are the selection criteria used to extract the data from the sources?

Question 4 --Is there a list of engineered controls and best practices? Please provide that list. With whom did EPA consult to develop a list of engineered controls and best practices? Will industry be able to add to that list? Will the list be peer reviewed in this rulemaking process?

Question 5 --How is the agency reducing a CERCLA 108(b) financial responsibility obligation to take into consideration the bonding requirements (either state or federal) that cover the same type of long-term liabilities? For example, if a facility already has a $50 million trust for long-term water quality and maintenance will the agency reduce any CERCLA 108(b) liability by the amount of the trust fund?

Question 6 -- How did EPA choose the types of instruments that would be available for each financial responsibility obligation? How did EPA calculate annualized instrument cost for each instrument?

Slide 29 - Request input from Potential SERs on issues related to:

* An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule

Response 1 --Please see the Federal Land Policy and Management Act section 302(b) (43 U.S.C. 1732(b) last sentence); BLM 43 CFR 3809 Regulations and the USFS 36 CFR 228A regulations. BLM Surface Management Handbook, H-3809-1; USFS *Training Guide for Reclamation and Administration,* adopted in April 2004; USFS Forest Service Manual 2800; July 24, 2015 memo from USFS Chief Tom Tidwell concerning USFS authority to require long term trusts to address post closure liabilities; Nuclear Regulatory Commission rules at 10 CFR Part 40, Appendix A, criterion 9.

* A description of any significant alternatives to the proposed rule which accomplish the stated objectives of the applicable statutes and which minimize any significant economic impact of the proposed rule on small entities

Response 2

A. Defer to the existing federal land management agencies' and states' environmental regulations and financial responsibility programs because there is complete overlap and a separate CERCLA 108(b) financial responsibility rule is unnecessary to protect the taxpayer and the Superfund. The federal land management agencies' and states' regulatory programs are designed to minimize adverse impacts to the environment and prevent releases of hazardous substances and their financial responsibility programs are the functional equivalent of a CERCLA 108(b) financial responsibility rule.
B. Identify if there are any serious gaps in the existing federal and state requirements and allow the federal land management agencies and states to address and fill those gaps.
C. Additional ideas to be provided as the SBAR process develops.

Attachment II to June 1 SER letter to EPA

The hardrock mining SERS respectfully request that EPA answer the following questions and provide the requested information prior to the June 9 pre convening conference. Answering these questions and providing this information prior to the June 9 will help ensure a more productive meeting and efficient use of our limited time.

1. Please provide the model EPA will use to calculate CERCLA 108(b) financial responsibility.
2. EPA has indicated it is developing statistically-derived factors to use in the formula. Please identify in detail the basis and assumptions EPA is using in obtaining the statistically –derived factors.
3. Please provide the cost data, engineering data, and underlying formulae that the model will use or otherwise inform the model; Where did EPA obtain the costs and data? Is EPA using costs from Superfund cleanup of pre-regulated mines?
4. How is the HAA amount determined? What is justification for a fixed amount when each mine site is unique?
5. How is the NRD percentage determined? What is justification for a fixed amount when each mine site is unique?
6. Please provide a complete list of BMPs considered under the proposed rule as model inputs or otherwise used to determine credit reductions in the amount of required financial responsibility.
7. Please provide a complete list of engineering controls considered under the proposed rule as model inputs or otherwise used to determine credit reductions in the amount of required financial responsibility.
8. Please provide a complete list of site features inputs used in developing the model. We understand EPA has identified 64 mining and mineral processing sites from which cost response data was obtained. Please identify those sites and the selection criteria used to identify those sites. How many of those sites are on the NPL? Which sites are mining sites? Which sites have co-located mineral processing or beneficiation activates? Which sites, if any, are stand-alone mineral processing or beneficiation sites?
9. Where in the mine life cycle would CERCLA 108(b) financial responsibility attach? Does it have to be in place before operations in an approved plan of operations begin? EPA has indicated that one of the acceptable financial responsibility instruments is Trust Funds. Will EPA allow trust funds to be funded over the life of the mine or will EPA require full funding at the beginning of operations? Is the amount negotiable or appealable? To whom?
10. Please provide details on the evaluation and timing of release of CERCLA 108(b) financial responsibility instruments. How would it work? How long after a facility closes?

11. Financial assurance capacity study—who did EPA consult? What did EPA provide the companies? Is the study ongoing? Did EPA inquire about collateral requirements in order to obtain a financial responsibility instrument? What will EPA do if the financial assurance and insurance industries are unwilling or unable to offer financial instruments that comply with a CERCLA 108(b) rule?
12. Please demonstrate in detail how CERCLA 108(b) requirements are different than BLM/USFS/states' reclamation, closure, water and waste management financial assurance requirements.
13. The BLM & USFS follow an adaptive management protocol that requires monitoring to collect data the agencies and companies can use to determine 1) if their facility is functioning properly and complying with permit requirements and limits; and 2) to provide an early warning system to indicate if a problem may be developing so that a proper response can be developed and implemented. Both BLM and USFS have ample statutory and regulatory authority to increase financial assurance in response to identified problems. For example, BLM's surface management regulations at 43 CFR §3809.552(c)provides:

    > *(c) When BLM identifies a need for it, you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long-term treatment to achieve water quality standards and for other long term, post-mining maintenance requirements. The funding must be adequate to provide for construction, long-term operation, maintenance, or replacement of any treatment facilities and infrastructure, for as long as the treatment and facilities are needed after mine closure. BLM may identify the need for a trust fund or other funding mechanism during plan review or later.*

    Has EPA considered and discussed with BLM and USFS their adaptive management response to mine site monitoring data?
14. Has EPA conducted a credit rating survey for the range of entities, including small businesses that will be subject to a CERCLA 108(b) financial responsibility requirement? Please provide a copy of that survey.
15. Is EPA assuming that all currently operating mines and all future mines pose a risk of Section 107 liabilities, Natural Resource Damages and Human Health Assessment costs? How does EPA reconcile this with the fact that no mine permitted on federal land since 1990 has been added to the NPL? Do this mean the risk has been reduced to the point that no additional financial assurance is required?
16. What is EPA's budget for implementing and administering any CERCLA 108(b) rule? This information is needed to assure timeliness and responsiveness to small businesses.

To: Krueger, Anna[Krueger.Anna@epa.gov]
From: Pease, Michael
Sent: Thur 5/4/2017 1:55:04 PM
Subject: RE: EPA Warned Against Corporate Guarantees As Agency Eyes Mining Rule Options

FYI - The article link below this one in the Inside EPA article at the bottom of this email has a summary of ASTSWMO's assessment of the FY18 PB for EPA haz waste programs.

From: Sasseville, Sonya
Sent: Thursday, May 04, 2017 8:13 AM
To: Barr, Linda <Barr.Linda@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>; Pease, Michael <pease.michael@epa.gov>; ORCR IO <ORCR_IO@epa.gov>
Subject: RE: EPA Warned Against Corporate Guarantees As Agency Eyes Mining Rule Options

Thanks, Linda. Barnes, in case you haven't seen.

Sent from my Windows Phone

From: Barr, Linda
Sent: 5/4/2017 7:47 AM
To: Sasseville, Sonya; Foster, Barbara; Krueger, Anna; Pease, Michael
Subject: EPA Warned Against Corporate Guarantees As Agency Eyes Mining Rule Options

FYI – from today's Inside EPA

Daily News

EPA Warned Against Corporate Guarantees As Agency Eyes Mining Rule Options

May 03, 2017

Oklahoma regulators and environmentalists are urging EPA to eschew the use of corporate guarantees as a means of complying with its first-time rule requiring financial assurances from hardrock mining companies to show they can pay for potential hazardous substance releases, calls that could limit the agency's options as it crafts the rule.

But the agency is under heavy pressure from industry, western states and some lawmakers to weaken, or even withdraw, the pending Superfund rule for the hardrock mining sector, so their suggestions may be moot.

The agency could decide not to finalize the measure as it faces a court-ordered deadline to "take final action" by Dec. 1. That could include a "final action" dropping the rulemaking.

But because the agency faces such a deadline, environmentalists believe the agency will not suspend or withdraw the rule. Instead, one environmentalist involved in litigation over the rule believes the agency will likely "come out with a very weak rule on time," in order to meet the court deadline.

While the source is unsure what EPA might do to weaken the draft rule -- which was proposed under the Obama administration -- both the source and the Oklahoma Department of Environmental Quality (DEQ) are warning against EPA simply allowing mining companies to rely on corporate guarantees as a financial instrument to meeting financial assurance requirements.

That would make the rule useless in terms of ensuring adequate funds are available for worst-case scenarios, and would really just act as an IOU, the environmentalist tells *Inside EPA*.

Similarly, Oklahoma DEQ in April 7 comments submitted on the draft rule details the department's experience with the failure of many different kinds of financial assurance instruments such as insurance, corporate guarantees and financial tests, and therefore tells EPA its "preference" is for the agency not to include corporate guarantees or financial tests as compliance mechanisms in the final rule.

At the same time, the state says generally that the rule duplicates existing state and federal requirements -- a point industry and other critics of the rule have frequently argued.

The proposed rule would require owners and operators of certain types of hardrock mines and mineral processing facilities to give financial assurances of their ability to pay for potential releases of hazardous substances from their facilities, including Superfund cleanup costs, health assessment costs and natural resource damages. The Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) section 108(b) set out a 1983 requirement for EPA to identify classes of facilities that would be subject to financial assurance requirements, and called for then issuing such rules for those classes. Financial assurance mechanisms include insurance and surety bonds, among other mechanisms.

The Obama administration signed the first-time proposal in December to comply with a court-ordered deadline and published it in the *Federal Register* Jan. 11. The Obama EPA framed the rule as a measure to lift any burdens on taxpayers to pay for future hardrock mining cleanups that may be needed.

The agency at the time also argued that the rule would help deter the need for future Superfund remediation as it would adjust the amount of financial responsibility needed if environmentally protective practices have already been put in place.

GOP Opposition

Republican lawmakers, the mining industry, and western states strongly oppose the rule -- with Sen. Lisa Murkowski (R-AK) vowing to "stop this rule in its tracks" -- in part because they contend that the regulation would be duplicative of existing state and other requirements.

But environmentalists, who successfully sued the agency to force issuance of the rule, dispute those arguments, saying existing bond requirements are for reclamation, not spills or accidental releases that would fall under the EPA rule.

Meanwhile, the Trump EPA, in a March 21 budget document, signaled a possible move away from the draft version, calling for barring the use of Superfund remediation funds in fiscal year 2018 to "finalize or enforce" the proposed rule, "as the rule is currently written."

The Trump EPA earlier this year granted requests from numerous House and Senate lawmakers, industry and western states to extend the comment period on the draft rule by 120 days to July 11. The lawmakers and others cited the complexity of the rule and its cost to industry as reasons, among others, for an extension.

In the latest appeal to EPA, Nevada Gov. Brian Sandoval (R) met with EPA Administrator Scott Pruitt on April 25 to discuss the section 108 rulemaking, according to the agency.

Sandoval has been critical of the rule, arguing in an April 20 letter to Pruitt prior to the meeting that, as proposed, the rule would duplicate federal and state requirements and may even preempt Nevada's program.

He said in the letter that EPA, in writing the rule, failed to fully consider existing mining regulations and financial assurance requirements already imposed by states and other federal agencies. "Now is the time for EPA to consider whether

the CERCLA financial assurance rule is really necessary for this industry," he told Pruitt in the letter.

In an April 26 press release, Pruitt said of the discussion that "[t]he top-down approach doesn't always work well when formulating sensible regulations," adding that "states are best positioned to deal with the environmental needs of their citizens." He promised to consult with Nevada officials often as the agency makes decisions.

Sandoval meanwhile praised Pruitt and his staff for listening to him on issues facing Nevada, including the section 108 rulemaking and on a potential Superfund site listing.

Deferring Requirements

At this point, it is unclear what EPA will do in the final rule. The Small Business Administration's (SBA) Office of Advocacy -- among the few entities that have so far filed substantive comments on the rule -- is urging EPA to withdraw the proposed regulation, or at a minimum, identify gaps in existing state and federal financial assurance requirements and address those gaps in a separate proposal.

And in its March 16 comments, Hecla Mining Company endorses SBA's comments and urges EPA to "issue a Final Rule documenting that no additional financial assurance is needed for modern hardrock mining operations."

Agency staff in a Jan. 30 webinar opened the door to consideration of wholesale deferrals of financial assurance requirements under the rule in cases where state or other federal programs meet certain criteria. "Under this approach, owners and operators would not be required to comply with the requirements to calculate a financial responsibility amount and to obtain a financial responsibility instrument under EPA's CERCLA section 108(b) regulations after EPA determines that a state or federal program meets certain criteria," according to EPA slides presented on the webinar.

Under a program deferral, EPA's proposal says, mine owners and operators would still have to meet certain aspects of the rule, such as requirements related to notification to EPA and the public, in order to allow EPA to continue to monitor their compliance. The proposal also states both advantages and disadvantages to such an approach, noting that the advantages would include minimizing implementation of the rule at facilities already compliant with programmatic requirements. Among the several disadvantages are that the agency may have difficulty ensuring facilities continue to be in compliance with risk reduction requirements. -- *Suzanne Yohannan* (syohannan@iwpnews.com)

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201482

Linda Barr

Economist

Cleanup Programs Branch

Program Implementation and Information Division

Office of Resource Conservation and Recovery

US Environmental Protection Agency

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Washington, DC 20460

From: InsideEPA.com [mailto:epa-alerts@iwpnews.com]
Sent: Thursday, May 04, 2017 7:15 AM
To: Barr, Linda <Barr.Linda@epa.gov>
Subject: The Morning Headlines from InsideEPA.com -- May 4, 2017

The critical environmental policy-making news you need as you begin your day

May 4, 2017

Latest News

NOx Air Data Flaws Revive Debate On EPA Regulating Vehicles Or Utilities

Academics are touting new research that they claim shows EPA has massively overestimated the amount of nitrogen oxides (NOx) emissions that vehicles emit, reviving a debate over whether the agency and states should target emissions reduction rules on mobile sources or shift their focus to power plants as the alternative largest NOx source.

EPA Warned Against Corporate Guarantees As Agency Eyes Mining Rule Options

Oklahoma regulators and environmentalists are urging EPA to eschew the use of corporate guarantees as a means of complying with its first-time rule requiring financial assurances from hardrock mining companies to show they can pay for potential hazardous substance releases, calls that could limit the agency's options as it crafts the rule.

States Predict 'Severe Impact' To Waste Programs Under EPA FY18 Budget

State officials are warning that President Trump's fiscal year 2018 plan to slash EPA's budget would harm federal waste programs and "severely impact" environmental and public health protections and local economies, in some cases straining state programs so greatly that they risk returning delegated programs back to EPA.

Biomass Sector Backs FY17 Bill's Carbon Neutral Tag But Others Query Need

Biomass industry groups are welcoming legislative language in the fiscal year 2017 spending bill that directs EPA and other agencies to treat the renewable fuel as carbon neutral, but other fossil energy sectors question the need for such legislation when the Trump administration is undoing requirements to limit power sector greenhouse gas emissions.

First Trump EPA Rule For OMB Review Would Repeal Obama CWA Policy

EPA has sent its first new proposed rule for mandatory White House Office of Management &

Budget (OMB) policy review since the Trump administration began, seeking approval of a regulation that would repeal the Obama-era Clean Water Act (CWA) jurisdiction rule as the first step in the process of rewriting the policy to narrow the water law's reach.

California Panel OKs Bill Locking In Federal Rules Despite Citizen Suit Fears

California's Senate Judiciary Committee has approved a bill that would lock in to state law EPA and other federal environment standards as they existed before the Trump administration took office, despite fears among businesses that the measure includes citizen suit provisions that could lead to scores of new lawsuits under both federal and state law.

Daily Feed

Is industry ready to capitalize on deregulatory opportunities?

Industry groups are holding a meeting to strategize on how to best capitalize on regulatory reform efforts as one source warns that many may not be prepared to deal with the onslaught of opportunities.

Ethanol supporters push for E15, threatening methane rule repeal

Four corn-state Republican senators have conditioned support for scuttling the BLM rule on congressional action to waive EPA rules that limit higher concentrations of ethanol.

California firms join push to reverse GHG endangerment finding

The petition puts new pressure on Administrator Scott Pruitt to reconsider EPA's greenhouse gas endangerment finding.

Environmentalists challenge delay of power plant ELG

The suit claims EPA's delay of compliance deadlines in its effluent guideline for the power sector violated a host of Administrative Procedure Act requirements.

Quote-Unquote: All about changing climate-change policy

Much of the talk over the past week focused on the climate-change debate and Trump's first 100 days.

Ewire: A daily news roundup

Pruitt's camp may be gaining the upper hand in his push to get the US out of the Paris climate deal. Plus: EPA gets an earful on plans to roll back water rules and the ethanol sector plays hardball in the Senate.

EPA receives 43 WIFIA letters of interest

The letters of interest demonstrates the high demand from entities seeking credit assistance from EPA's new water infrastructure funding program.

Read all the latest EPA news, analysis and documents →

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To: Krueger, Anna[Krueger.Anna@epa.gov]
From: Cuthbertson, Becky
Sent: Fri 5/5/2017 1:38:43 PM
Subject: RE: 5.4.17 Notes from RCRAInfo Financial Assurance v6 Module Workgroup

Hi Anna,

My unavailability is Wednesdays 11-12, and every other Friday (the second Friday of the pay period) 9-10.

It was an interesting discussion; I agree with Mark that the question of which data system to go with is pretty fundamental, and rather complicated.

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

From: Krueger, Anna
Sent: Thursday, May 04, 2017 5:29 PM
To: Goodwin, Debbie <Goodwin.Debbie@epa.gov>; Pease, Michael <pease.michael@epa.gov>; Cuthbertson, Becky <Cuthbertson.Becky@epa.gov>; Huynh-Linenberg, Jacquie <huynh-linenberg.jacquie@epa.gov>; Stewart, Robert <Stewart.RobertG@epa.gov>; York, Brooke <York.Brooke@epa.gov>; Hardegree, Wesley <Hardegree.Wes@epa.gov>; McGoldrick, Catherine <McGoldrick.Catherine@epa.gov>; Grisolano, Mary <Grisolano.Mary@epa.gov>; Golden, Daniela <Golden.Daniela@epa.gov>; Ainoa, Ian <ainoa.ian@epa.gov>; Castrilli, Laura <Castrilli.Laura@epa.gov>; Berley Goetz <KGOE461@ECY.WA.GOV>; mark.latham@ct.gov; Theresa Doggett <Theresa.doggett@dnr.mo.gov>; brian.s.white@illinois.gov; Bud.mccarty@ncdenr.gov; tmcgurk@state.pa.us
Cc: Mcgurk, Tracey <tmcgurk@pa.gov>; McCullough, Barbara <McCullough.Barbara@epa.gov>; Goetz, Mary <goetz.mary@epa.gov>; Thomas, Colleen <Thomas.Colleen@epa.gov>; Johnson, Jeff <Johnson.Jeff@epa.gov>; Murrow, Patricia <Murrow.Patricia@epa.gov>
Subject: 5.4.17 Notes from RCRAInfo Financial Assurance v6 Module Workgroup

Thank you all for taking part in the first meeting of the RCRAInfo version 6 Financial Assurance module workgroup. Following are notes from today's call:

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

From: Krueger, Anna
Location: Call-in number: **Ex. 6 - Personal Privacy conference line**
Importance: Normal
Subject: Accepted: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

To: Shimeles, Taetaye[Shimeles.Taetaye@epa.gov]
Cc: Richard Benware (Benware.Richard@epa.gov)[Benware.Richard@epa.gov]
From: Cultice, Alyssa
Sent: Wed 3/15/2017 4:39:17 PM
Subject: Options for modifying the hrm rule 20 Attachment 3_RJB_AC.docx
Options for modifying the hrm rule 20 Attachment 3_RJB_AC.docx

Hi Taetaye,

Attached is the options document with Richard and my edits.

-Alyssa

From: Cultice, Alyssa
Location: Call-in number: **Ex. 6 - Personal Privacy conference line**
Importance: Normal
Subject: Tentative: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

To: Mooney, Charlotte[Mooney.Charlotte@epa.gov]
From: Ames, Jeremy
Sent: Thur 1/5/2017 3:53:09 PM
Subject: FW: Media Round Up for the Proposed CERCLA 108b rule as of 12/12

From: Sullivan, Drew
Sent: Monday, December 12, 2016 3:45 PM
To: ORCR IO <ORCR_IO@epa.gov>
Cc: ORCR Press <ORCR_Press@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Pease, Michael <pease.michael@epa.gov>
Subject: Media Round Up for the Proposed CERCLA 108b rule as of 12/12

Good afternoon,

Below is the most current media roundup on the proposed rule as of this afternoon.

-Drew

Press:

- Washington Examiner (blog): EPA sparks GOP ire with eleventh-hour mining rules

- Central Valley Business Times: New restrictions proposed for hard rock mining

- Environment Guru: EPA CERCLA financial assurance rule ignores states and small business

  - The Hill: EPA seeks to ensure mining companies can pay cleanup costs
  - Mining Journal: Govt, mining bodies in CERCLA row

- E&E News: Deadline arrives for new EPA bonding rules

- Minnesota Public Radio News: EPA proposes rule requiring mines to cover clean-up costs

- Energy Law Today: Show Me the Money: EPA to Require Hardrock Mining Companies to Make Financial Assurances RE Cleanup

o Similar story published by Mondaq

•□□□□□□□ The National Law Review: EPA Releases CERCLA 108(b) Proposed Rule for Hardrock Mining and Schedule for Decisions On Other Industries

•□□□□□□□ The National Law Review: EPA Proposes Financial Responsibility Requirements for Hardrock Mining Industry

•□□□□□□□ PoliticalNews.me: EPA's Unnecessary, Burdensome CERCLA Rule Will Harm Mining, Manufacturing in America

•□□□□□□□ Courthouse News Service: Firms Told to Put Money Where Their Mines Are

•□□□□□□□ Bloomberg BNA, Energy and Environment Blog: WHAT ENVIRONMENTAL NEWS TO WATCH THE WEEK OF DEC. 5

•□□□□□□□ Boise State Public Radio: EPA To Require Mines To Offer Cleanup Assurances

•□□□□□□□ Engineering and Mining Journal: EPA Proposes Duplicative Financial Assurance Requirements

•□□□□□□□ Legal NewsLine: EPA plan seeks to protect taxpayers from financial woes linked to hardrock mining contamination

•□□□□□□□ The Associated Press: EPA to require mines to offer cleanup assurances

o Similar AP stories published by The Washington Post, The Denver Post, The Washington Times, The Daily Progress, La Crosse Tribune, The Daily Inter Lake, Great Falls Tribune, The Idaho Business Review and The Cortez Journal

-

Statements:

•□□□□□□□ National Mining Association: EPA's proposed financial responsibility rule for miners a 'job killer' — industry

•□□□□□□□ The Casper Journal: The Roundup, Dec. 7

•□□□□□□□ The Energy and Commerce Committee: Upton & Bishop: EPA Releases Burdensome and Duplicative CERCLA Financial Assurance Rules

•□□□□□□□ Water Online: EPA Proposes Financial Responsibility Requirements For Hardrock Mining Industry

•□□□□□□□ JD Supra Business Advisor: EPA Proposes Financial Responsibility Requirements for Hardrock Mining Industry - The Proposed Rule Could Set a Precedent for Other Industries and Directly Impact Financial Institutions

•□□□□□□□ Environment Guru: EPA to require mines to offer cleanup assurances

•□□□□□□□ Environment Guru: SUPERFUND: EPA proposes mine bonding rule, targets other industries

•□□□□□□□ Federal Regulations Advisor: Monday Morning Regulatory Transition Review – 12/5/16: Healthcare Funding Responses; Hardrock Mining Liabilities; Mid-Term CAFE; Last Education Regulations Tango & Banning the Personnel Box

•□□□□□□□ American Exploration & Mining Association: EPA ISSUES JOB KILLING RULE

•□□□□□□□ Lexology (Husch Blackwell LLP): EPA Proposes Rule on Financial Responsibility for Cleanups in Mining Industry

•□□□□□□□ Lexology (Holland & Hart LLP): EPA Releases New Details On CERCLA 108(b) Rule For The Hardrock Mining Industry—Foreshadows Rules For Other Industries

•□□□□□□□ Lexology (Holland & Knight LLP): EPA Proposes Financial Responsibility Requirements for Hardrock Mining Industry

•□□□□□□□ Lexology (Morgan Lewis & Bockius LP): EPA targets power and manufacturing industries for new financial assurance requirements: electric power, petroleum and coal products manufacturing, and chemical manufacturing affected

-

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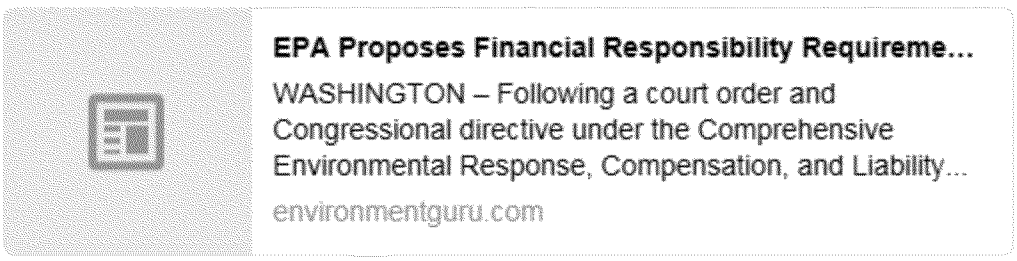
Social Media:

American Exploration @MiningAmerica · 2h
Job killing #CERCLA rule issued by @EPA. Duplicates & overlaps current effective federal & state programs. #Jobs bit.ly/2gveLdX

CVBT @cvbtnews · 54m
New restrictions proposed for hard rock mining
centralvalleybusinesstimes.com/stories/001/?l...
#CVBT #**epa**

Environment Guru @environmentguru · 10h
EPA CERCLA financial assurance rule ignores states and small business: The American... environmentguru.com/pages/elements... #**CERCLA** #Superfund #forest

Toxic - EGuru @Toxicevironguru · Dec 3
EPA Proposes Financial Responsibility Requirements for Hardrock Mining Industry: WASHINGTON – Following a...
environmentguru.com/pages/elements... #**CERCLA**



dan oancea @dankogaion · 6h

#**EPA** to require #mines to offer cleanup assurances

EPA Proposes Financial Responsibility Requireme...

Following a court order and Congressional directive under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the U.S. E...

wateronline.com

Toxic - EGuru @Toxicevironguru · 2h
EPA CERCLA financial assurance rule ignores states and small business: The American... environmentguru.com/pages/elements... #CERCLA #**Superfund** #forest

EPA CERCLA financial assurance rule ignores stat...
The American Exploration & Mining Association (AEMA) reports the US Environmental Protection Agency (EPA) has released "its deeply flawed proposed financial
environmentguru.com

Environment Guru @environmentguru · 13h
EPA CERCLA financial assurance rule ignores states and small business: The American... environmentguru.com/pages/elements... #CERCLA #**Superfund** #forest

Toxic - EGuru @Toxicevironguru · Dec 3
EPA to require mines to offer cleanup assurances: The Environmental Protection Agency on Friday said it... environmentguru.com/pages/elements... #**Superfund**

EPA to require mines to offer cleanup assurances
The Environmental Protection Agency on Friday said it plans to require mining companies to show they have the financial wherewithal to clean up their pollution
environmentguru.com

Toxic - EGuru @Toxicevironguru · Dec 2

SUPERFUND: EPA proposes mine bonding rule, targets other industries: U.S. EPA Administrator Gina… environmentguru.com/pages/elements… **#Superfund**

SUPERFUND: EPA proposes mine bonding rule, tar…

U.S. EPA Administrator Gina McCarthy signed a proposed rule late yesterday meant to protect taxpayers from cleaning up hardrock mining pollution.

environmentguru.com

Toxic - EGuru @Toxicevironguru · Dec 2

SUPERFUND: Deadline arrives for new EPA bonding rules: U.S. EPA today is expected to publish a proposed… environmentguru.com/pages/elements… **#Superfund**

SUPERFUND: Deadline arrives for new EPA bondin…

U.S. EPA today is expected to publish a proposed rule on new Superfund program requirements for hardrock mining and also say whether it intends to pursue

environmentguru.com

Toxic - EGuru @Toxicevironguru · 12h

EPA Proposes Financial Requirements for Clean-Up at Hardrock Mining Facilities:... environmentguru.com/pages/elements... **#CERCLA** #Reclamation #Groundwater

Toxic - EGuru @Toxicevironguru · Dec 7

EPA Releases CERCLA Financial Assurance Rule: EPA has released its long-awaited proposed CERCLA... environmentguru.com/pages/elements... **#CERCLA** #bird

EPA Releases CERCLA Financial Assurance Rule

EPA has released its long-awaited proposed CERCLA financial assurance regulations for the hardrock mining industry. When finalized, these regulations will serve

environmentguru.com

National Law Review @natlawreview · Dec 9
#EPA Releases #**CERCLA** 108(b) Prop Rule for Hardrock Mining, Schedule for Decisions On Other Industries ow.ly/ADKh306WuYz

1 2

THE NLR

EnviroEnergy @NatLaw @NatLawEnviro · Dec 9
#EPA Releases #**CERCLA** 108(b) Prop Rule for Hardrock Mining, Schedule for Decisions On Other Industries ow.ly/ADKh306WuYz

National Law Review @natlawreview · Dec 8
#EPA Releases #**CERCLA** 108(b) Prop Rule for Hardrock Mining, Schedule for Decisions On Other Industries ow.ly/vR9X306Wuss @HollandHart

To: Mattick, Richard[Mattick.Richard@epa.gov]; Cogliano, Gerain[Cogliano.Gerain@epa.gov]; Noggle, William[Noggle.William@epa.gov]
Cc: Farber, Glenn[Farber.Glenn@epa.gov]
From: Jutras, Nathaniel
Sent: Tue 10/17/2017 10:02:06 PM
Subject: RE: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

Hi Richard,

I will chair the FAR and I'm available any time other than from 2 – 2:30 pm. Please include Glenn and I on the calendar invitation.

Thanks,

Nate

From: Mattick, Richard
Sent: Tuesday, October 17, 2017 3:13 PM
To: Cogliano, Gerain <Cogliano.Gerain@epa.gov>; Jutras, Nathaniel <Jutras.Nathaniel@epa.gov>; Noggle, William <Noggle.William@epa.gov>
Cc: Farber, Glenn <Farber.Glenn@epa.gov>
Subject: RE: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

I think we keep on the 25th as we have planned.

Nate I think we should shoot for the afternoon sometime to give the reviewers as much time as possible. Does that make sense and work for OP?

From: Cogliano, Gerain
Sent: Tuesday, October 17, 2017 2:17 PM
To: Jutras, Nathaniel <Jutras.Nathaniel@epa.gov>; Noggle, William <Noggle.William@epa.gov>; Mattick, Richard <Mattick.Richard@epa.gov>
Subject: RE: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

Yeah, I just got the same question from OECA.

The FAR materials will go out Thursday/Friday. Meeting will have to be next week; schedule says 10/25. The package is going to OP on 10/30 and to OMB by nlt 11/1. So what timing is good for OP on 10/25?

From: Jutras, Nathaniel
Sent: Tuesday, October 17, 2017 2:13 PM
To: Noggle, William <Noggle.William@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>
Subject: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

Gerain, Bill, I received a question about when the FAR will be for CERCLA 108(b) hardrock mining rule (5350.1). I imagine it will be fairly soon, correct? Are you about ready to schedule it?

Thanks,

Nate

To: Cogliano, Gerain[Cogliano.Gerain@epa.gov]; Jutras, Nathaniel[Jutras.Nathaniel@epa.gov]; Noggle, William[Noggle.William@epa.gov]
Cc: Farber, Glenn[Farber.Glenn@epa.gov]
From: Mattick, Richard
Sent: Tue 10/17/2017 7:13:26 PM
Subject: RE: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

I think we keep on the 25th as we have planned.

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From: Cogliano, Gerain
Sent: Tuesday, October 17, 2017 2:17 PM
To: Jutras, Nathaniel <Jutras.Nathaniel@epa.gov>; Noggle, William <Noggle.William@epa.gov>; Mattick, Richard <Mattick.Richard@epa.gov>
Subject: RE: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

Yeah, I just got the same question from OECA.

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From: Jutras, Nathaniel
Sent: Tuesday, October 17, 2017 2:13 PM
To: Noggle, William <Noggle.William@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>
Subject: FAR date for CERCLA 108(b) hardrock mining rule (5350.1)?

Gerain, Bill, I received a question about when the FAR will be for CERCLA 108(b) hardrock mining rule (5350.1). I imagine it will be fairly soon, correct? Are you about ready to schedule it?

Thanks,

Nate

To: Noggle, William[Noggle.William@epa.gov]
Cc: Hoffman, Wendy[Hoffman.Wendy@epa.gov]
From: Cogliano, Gerain
Sent: Thur 12/1/2016 1:04:31 PM
Subject: FW: Action Memo for the 108(b) Hardrock Mining Rule
Final HRM Action Memo draft 6.docx

Oh yeah….formatting!

From: Cogliano, Gerain
Sent: Thursday, December 01, 2016 8:03 AM
To: Noggle, William <Noggle.William@epa.gov>
Cc: Hoffman, Wendy <Hoffman.Wendy@epa.gov>
Subject: FW: Action Memo for the 108(b) Hardrock Mining Rule

Wendy, Bill is gonna look at this, too, and ensure it is correctly formatted, reads well, etc.

From: Foster, Barbara
Sent: Thursday, December 01, 2016 2:06 AM
To: Hoffman, Wendy <Hoffman.Wendy@epa.gov>
Cc: ORCR IO <ORCR_IO@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>
Subject: Action Memo for the 108(b) Hardrock Mining Rule

Wendy,

The Action Memo is attached. The SBAR Panel information is in italics because it may change tomorrow, but meanwhile you can take a look at it.

Thanks

Barbara Foster

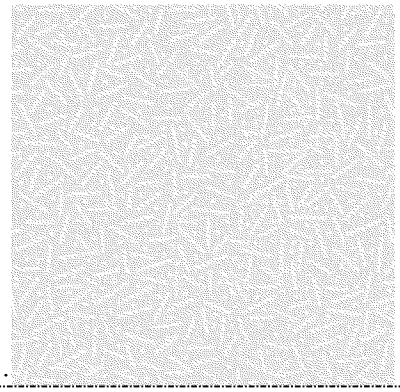
OSWER/ORCR/PIID

703-308-7057

To: Palmer, Scott[Palmer.Scott@epa.gov]
From: Schoenborn, William
Sent: Tue 6/13/2017 4:27:57 PM
Subject: Info on Additional Classes from Bill Kline
comprehensive database
FYI #2
FYI #1
RE: FYI: 108(b) FOIA Chris Leason Gallagher & Kennedy
request your feedback
RE: potential excluded classes
potential excluded classes
FW: follow-up meeting to discuss preamble needs
FW: follow-up meeting to discuss preamble needs
Reminder -- Review of documents re: preamble language

Don't know if you have this or not. E-mail messages from Bill Kline related to information on 108(b) Additional Classes .

To: Foster, Barbara[Foster.Barbara@epa.gov]
Cc: Schoenborn, William[Schoenborn.William@epa.gov]; Taylor, Timothy[Taylor.Timothy@epa.gov]
From: Kline, Bill
Sent: Mon 3/21/2016 6:08:14 PM
Subject: FW: follow-up meeting to discuss preamble needs



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Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Kline, Bill
Sent: Wednesday, March 02, 2016 3:46 PM
To: Foster, Barbara
Subject: FW: follow-up meeting to discuss preamble needs

Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Kline, Bill
Sent: Wednesday, February 24, 2016 3:51 PM
To: Foster, Barbara <Foster.Barbara@epa.gov>
Subject: follow-up meeting to discuss preamble needs

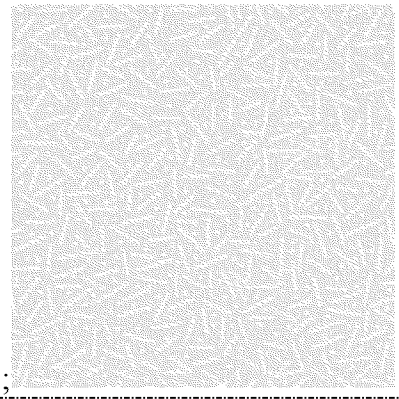
Hi Barbara. Hope all is going well. **Ex. 5 - Deliberative Process**

Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Taylor, Timothy[Taylor.Timothy@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Mon 3/7/2016 3:15:34 PM
Subject: FW: follow-up meeting to discuss preamble needs



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???????

Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Kline, Bill
Sent: Wednesday, March 02, 2016 3:46 PM
To: Foster, Barbara
Subject: FW: follow-up meeting to discuss preamble needs

Hi Barbara. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process Thanks – hang in there!

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division

Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
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From: Kline, Bill
Sent: Wednesday, February 24, 2016 3:51 PM
To: Foster, Barbara <Foster.Barbara@epa.gov>
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Ex. 5 - Deliberative Process

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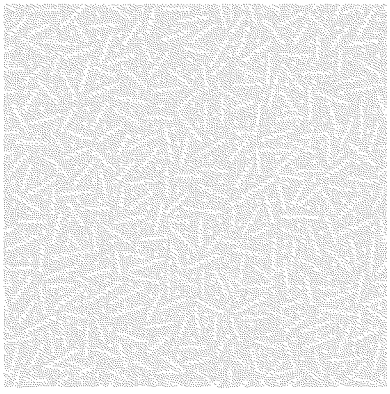
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Wed 2/15/2017 4:12:50 PM
Subject: FYI #1
MattHale_Briefing_10-1-09.doc
SussmanBriefing_110609.doc
CERCLA 108 briefing_050609.doc
Briefing_AA_081309rev.doc
AdditionalClasses_roadmap03_071410.ppt
AdditionalClasses_Next Steps Briefing2.docx
AdditionalClasses_070109.ppt
Status of Data & Analysis for Additional Sectors_090811.docx

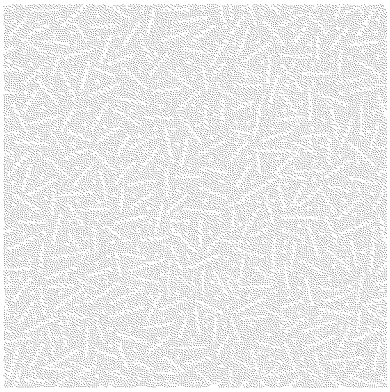


Perhaps you will find these documents to be of interest. I will send you a second email with more info.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Wed 2/15/2017 4:23:00 PM
Subject: FYI #2
NAICS 324 and 325 Preliminary Assessment of Response Costs_120910.xls
CERCLA 108(b) NAICS 324&325 Analysis Algorithm, Methods, and Caveats_11.19.10.pdf
NAICS 324 and 325_ PrelimAssessment_ResponseCosts_NPL and non-NPL_122810.xlsx
2010.12.17 Draft - CERCLIS NPL Sites in NAICS 324 & 325 Universe.xls
Task 8_NPL Sites in NAICS 324_12.17.10.pdf
Additional Sectors NPL sites for analysis.xls

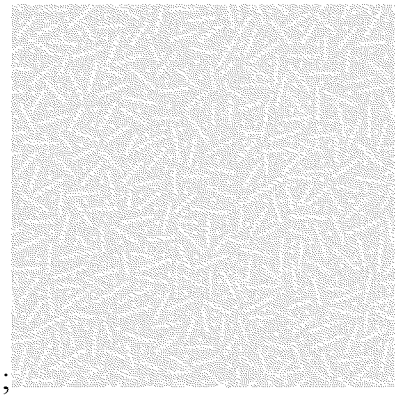


More info re: additional classes. Let me know if these are useful to you.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Kelly, PatrickM[Kelly.PatrickM@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Mon 4/11/2016 2:16:28 PM
Subject: potential excluded classes
REVISED TD 02_Paper 3_Small Mines 8 21 2015.docx
REVISED TD 02_Paper 1_Mine exploration 8 21 2015.docx
REVISED TD 02_Paper 2_Placer mining 8.21.2015.docx



;;;;;;;;
Good morning, Patrick and Bill. Barbara Foster asked me to forward these three documents to you. I just received them last week from Richard Benware. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process Thanks for your assistance.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Benware, Richard
Sent: Thursday, April 07, 2016 11:15 AM
To: Kline, Bill
Cc: Foster, Barbara ; Palmer, Scott
Subject: RE: question re: small mines

Bill,

Ex. 5 - Deliberative Process

Best,

-Richard

==========

Richard J. Benware

Economics Team Leader, U.S. EPA

Economics & Risk Analysis Staff

1200 Pennsylvania Ave., NW

Mail Code 5305P

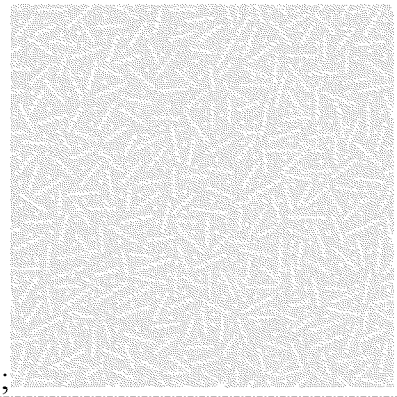
Washington, DC 20460

Email: benware.richard@epa.gov

Phone: (703) 308-0436

==========

To: Foster, Barbara[Foster.Barbara@epa.gov]
Cc: Palmer, Scott[Palmer.Scott@epa.gov]; Taylor, Timothy[Taylor.Timothy@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Thur 4/21/2016 6:51:52 PM
Subject: request your feedback
HardrockMiningPreamble_SubpartH_BillKline_rev042116.docx



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Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Pease, Michael
Location: Call-in number: Ex. 6 - Conference Code Conference code: Ex. 6 - Conference Code
Importance: Normal
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

The U.S. Environmental Protection Agency expects to sign a proposed rulemaking on financial responsibility requirements for the hardrock mining and mineral processing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

We would like to offer you and other representatives of the surety, insurance and banking community the opportunity to join a call on December 6 about the proposal. The call details are below:

When: Tuesday, December 6, 2016

Time: 3:00 p.m. (Eastern)

Call-in number: Ex. 6 - Conference Code

Conference code: Ex. 6 - Conference Code

To: Pease, Michael[pease.michael@epa.gov]
From: Wanke, Daniel
Sent: Thur 12/1/2016 7:06:38 PM
Subject: RE: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule [WARNING: SPF validation failed]

Okay, thanks. I will let them know if I hear from them.

Daniel

From: Pease, Michael [mailto:pease.michael@epa.gov]
Sent: Thursday, December 01, 2016 1:08 PM
To: Wanke, Daniel <dwanke@surety.org>
Subject: RE: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule [WARNING: SPF validation failed]

Hi Daniel,

I have not been contacted by anyone from Swiss Re and thus do not have a POC for you. If SFAA is contacted by Swiss Re you may share the call-in information with them however.

Mike

From: Wanke, Daniel [mailto:dwanke@surety.org]
Sent: Thursday, December 01, 2016 12:35 PM
To: Pease, Michael <pease.michael@epa.gov>
Subject: RE: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule [WARNING: SPF validation failed]

I have not received a request from anyone. Do you have the person's name?

Daniel Wanke

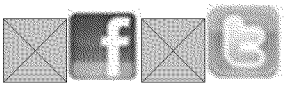
Manager - Regulatory and Government Affairs

The Surety & Fidelity Association of America

(202) 778-3631 - Direct

(202) 463-0606 - Fax

www.surety.org



-----Original Appointment-----
From: Marema, Lenore **On Behalf Of** Pease, Michael
Sent: Thursday, December 01, 2016 11:58 AM
To: Wanke, Daniel
Subject: Fwd: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
When: Tuesday, December 06, 2016 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Call-in number: Ex. 6 - Personal Privacy conference line Conference code: Ex. 6 - Personal Privacy conference line

You have a contact at Swiss Re that would like this info?

Sent from my iPhone

Begin forwarded message:

From: "Pease, Michael" <pease.michael@epa.gov>
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

The U.S. Environmental Protection Agency expects to sign a proposed rulemaking on financial responsibility requirements for the hardrock mining and mineral processing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

We would like to offer you and other representatives of the surety, insurance and banking community the opportunity to join a call on December 6 about the proposal. The call details are below:

When: Tuesday, December 6, 2016
Time: 3:00 p.m. (Eastern)
Call-in number: Ex. 6 - Personal Privacy conference line
Conference code: Ex. 6 - Personal Privacy conference line

To: Pease, Michael[pease.michael@epa.gov]
From: Wanke, Daniel
Sent: Thur 12/1/2016 5:35:28 PM
Subject: RE: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule [WARNING: SPF validation failed]

I have not received a request from anyone. Do you have the person's name?

Daniel Wanke
Manager - Regulatory and Government Affairs
The Surety & Fidelity Association of America
(202) 778-3631 - Direct
(202) 463-0606 - Fax
www.surety.org

-----Original Appointment-----
From: Marema, Lenore **On Behalf Of** Pease, Michael
Sent: Thursday, December 01, 2016 11:58 AM
To: Wanke, Daniel
Subject: Fwd: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
When: Tuesday, December 06, 2016 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Call-in number: Ex. 6 - Personal Privacy conference line Conference code: Ex. 6 - Personal Privacy conference line

You have a contact at Swiss Re that would like this info?

Sent from my iPhone

Begin forwarded message:

From: "Pease, Michael" <pease.michael@epa.gov>
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

The U.S. Environmental Protection Agency expects to sign a proposed rulemaking on financial responsibility requirements for the hardrock mining and mineral processing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

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When: Tuesday, December 6, 2016

Time: 3:00 p.m. (Eastern)
Call-in number: Ex. 6 - Personal Privacy conference line
Conference code: Ex. 6 - Personal Privacy conference line

From: Pease, Michael
Location: Call-in number: Ex. 6 - Personal Privacy conference line Conference code: Ex. 6 - Personal Privacy conference line
Importance: Normal
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

;;
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Time: 3:00 p.m. (Eastern)

Call-in number: Ex. 6 - Personal Privacy conference line

Conference code: Ex. 6 - Personal Privacy conference line

From: Pease, Michael
Location: Call-in number: Ex. 6 - Personal Privacy conference line Conference code: Ex. 6 - Personal Privacy conference line
Importance: Normal
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Start Date/Time: Tue 12/6/2016 8:00:00 PM
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When: Tuesday, December 6, 2016

Time: 3:00 p.m. (Eastern)

Call-in number: Ex. 6 - Personal Privacy conference line

Conference code: Ex. 6 - Personal Privacy conference line

To: Pease, Michael[pease.michael@epa.gov]
From: Poplawski, Joseph
Sent: Thur 12/1/2016 1:11:17 AM
Subject: RE: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

Thank you Michael. Hopefully I will have a chance to review the draft rule before then.

Joseph Poplawski, AFSB, CPCU
VP, National UW Officer

Argo Surety
4600 S. Syracuse Street Suite 400
Denver, Colorado 80237
United States of America

Mailing Address:
PO Box 469012
San Antonio, TX 78246

P +1 (303) 773 7328
C +[Ex. 6 - Personal Privacy cell phone]
E jpoplawski@argosurety.com

From: Pease, Michael [mailto:pease.michael@epa.gov]
Sent: Wednesday, November 30, 2016 3:37 PM
To: Pease, Michael
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

Good evening,

Tomorrow U.S. Environmental Protection Agency expects to sign a proposed rulemaking on financial responsibility requirements for the hardrock mining and mineral processing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

We would like to offer you and other representatives of the surety, insurance and banking community the opportunity to join a call on Tuesday about the proposal (a calendar invite will be

sent soon). The call details are below:

When: Tuesday, December 6, 2016

Time: 3:00 p.m. (Eastern)

Call-in number: Ex. 6 - Personal Privacy conference line

Conference code: Ex. 6 - Personal Privacy conference line

If you have any questions, please let me know.

Michael Pease

Office of Resource Conservation and Recovery
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

To: Pease, Michael[pease.michael@epa.gov]
From: Gorton, III, William T.
Sent: Wed 11/30/2016 10:37:35 PM
Subject: RE: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

Thank you

William T. Gorton III
Member
Direct: 859-226-2241
Mobile: Ex. 6 - Personal Privacy cell phone
Fax: 859-425-7940
wgorton@stites.com

STITES&HARBISON PLLC
250 West Main Street, Suite 2300, Lexington, KY 40507-1758
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NOTICE: This message is intended only for the addressee and may contain information that is privileged, confidential and/or attorney work product. If you are not the intended recipient, do not read, copy, retain or forward this message or any attachment. Please notify the sender immediately and delete all copies of the message and any attachments. Neither the transmission of this message or any attachment, nor any error in transmission, constitutes a waiver of any applicable legal privilege.

From: Pease, Michael [mailto:pease.michael@epa.gov]
Sent: Wednesday, November 30, 2016 5:37 PM
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Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

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Office of Resource Conservation and Recovery
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

To: Pease, Michael[pease.michael@epa.gov]
From: Pease, Michael
Sent: Wed 11/30/2016 10:36:39 PM
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

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U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

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Washington, DC 20460

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Michael Pease

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U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

To: Pease, Michael[pease.michael@epa.gov]
From: Pease, Michael
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Michael Pease

Office of Resource Conservation and Recovery
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

To: Pease, Michael[pease.michael@epa.gov]
From: Pease, Michael
Sent: Wed 11/30/2016 10:36:39 PM
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If you have any questions, please let me know.

Michael Pease

Office of Resource Conservation and Recovery
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

From: Pease, Michael
Location: Call-in number: Ex. 6 - Conference Code Conference code: Ex. 6 - Conference Code
Importance: Normal
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

The U.S. Environmental Protection Agency expects to sign a proposed rulemaking on financial responsibility requirements for the hardrock mining and mineral processing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

We would like to offer you and other representatives of the surety, insurance and banking community the opportunity to join a call on December 6 about the proposal. The call details are below:

When: Tuesday, December 6, 2016

Time: 3:00 p.m. (Eastern)

Call-in number: Ex. 6 - Conference Code

Conference code: Ex. 6 - Conference Code

To: Pease, Michael[pease.michael@epa.gov]
Bcc: Foster, Barbara[Foster.Barbara@epa.gov]; Huggins, Richard[Huggins.Richard@epa.gov]; Stachowiak, Robert[Stachowiak.Robert@epa.gov]; Harman, Greta[Harman.Greta@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Krueger, Anna[Krueger.Anna@epa.gov]; michael.a.grizzanti@baml.com[michael.a.grizzanti@baml.com]; debra.f.smith@citi.com[debra.f.smith@citi.com]; jordan.schweon@intesasanpaulo.com[jordan.schweon@intesasanpaulo.com]; fiore.petrassi@jpmchase.com[fiore.petrassi@jpmchase.com]; sam.j.jebamony@jpmchase.com[sam.j.jebamony@jpmchase.com]; rhonda.sulier1@wellsfargo.com[rhonda.sulier1@wellsfargo.com]; vanessa.meyer@welssfargo.com[vanessa.meyer@welssfargo.com]; stephen.j.perry@wellsfargo.com[stephen.j.perry@wellsfargo.com]; robert.owens@acegroup.com[robert.owens@acegroup.com]; sbowman@archinsurance.com[sbowman@archinsurance.com]; jpoplawski@argosurety.com[jpoplawski@argosurety.com]; aort@evergreenbonds.com[aort@evergreenbonds.com]; gsemrow@lexonsurety.com[gsemrow@lexonsurety.com]; dcampbell@lexonsurety.com[dcampbell@lexonsurety.com]; chris.indelicato@libertymutual.com[chris.indelicato@libertymutual.com]; GERARDO.SALVATORE@LibertyMutual.com[GERARDO.SALVATORE@LibertyMutual.com]; ken.berk@libertymutual.com[ken.berk@libertymutual.com]; aatwell@travelers.com[aatwell@travelers.com]; randy.doyle@zurichna.com[randy.doyle@zurichna.com]; pat.oleary@bnymellon.com[pat.oleary@bnymellon.com]; suzanne.hansen@usbank.com[suzanne.hansen@usbank.com]; gregory.jordan@usbank.com[gregory.jordan@usbank.com]; elizabeth.boyd@usbank.com[elizabeth.boyd@usbank.com]; beth.solomon@usbank.com[beth.solomon@usbank.com]; thor_g_haraldsson@keybank.com[thor_g_haraldsson@keybank.com]; kevin.c.weeks@db.com[kevin.c.weeks@db.com]; ray.englebert@wellsfargo.com[ray.englebert@wellsfargo.com]; Bryan.Weiss@acegroup.com[Bryan.Weiss@acegroup.com]; madeline.woods@aig.com[madeline.woods@aig.com]; adam.garrison@aig.com[adam.garrison@aig.com]; andrew.roth@aig.com[andrew.roth@aig.com]; john.howard@aig.com[john.howard@aig.com]; larry.obrien@aig.com[larry.obrien@aig.com]; susan.murnane@aig.com[susan.murnane@aig.com]; sobrien@chubb.com[sobrien@chubb.com]; jgibson@chubb.com[jgibson@chubb.com]; mvuono@gaig.com[mvuono@gaig.com]; matt.omalley@xlgroup.com[matt.omalley@xlgroup.com]; maryann.susavidge@xlcatlin.com[maryann.susavidge@xlcatlin.com]; randy.doyle@zurichna.com[randy.doyle@zurichna.com]; bob.newmarker@zurichna.com[bob.newmarker@zurichna.com]; rduke@surety.org[rduke@surety.org]; jsigmund@aba.com[jsigmund@aba.com]; phoebep@aba.com[phoebep@aba.com]; lmarema@surety.org[lmarema@surety.org]; dwanke@surety.org[dwanke@surety.org]; tsantos@aiadc.org[tsantos@aiadc.org]; James.Barnes@bakermckenzie.com[James.Barnes@bakermckenzie.com]; jberger@iiblp.org[jberger@iiblp.org]; jbyrne@iiblp.org[jbyrne@iiblp.org]; wgorton@stites.com[wgorton@stites.com]
From: Pease, Michael
Sent: Wed 11/30/2016 10:36:39 PM
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule

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If you have any questions, please let me know.

Michael Pease

Office of Resource Conservation and Recovery
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(703) 308-0008

To: Radtke, Meghan[Radtke.Meghan@epa.gov]
From: Palmer, Scott
Sent: Thur 8/10/2017 9:14:29 PM
Subject: FW: Reg Agenda Update - 108(b) HRM

Hi Meghan, Here is a forwarded copy of the subject e-mail concurrence that I received from Glenn Farber.

From: Farber, Glenn
Sent: Thursday, August 10, 2017 4:11 PM
To: Palmer, Scott <Palmer.Scott@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) HRM

OP is OK with these minor modifications, and agrees with your direction.

From: Palmer, Scott
Sent: Thursday, August 10, 2017 3:58 PM
To: Stachowiak, Robert <Stachowiak.Robert@epa.gov>; Farber, Glenn <Farber.Glenn@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Subject: FW: Reg Agenda Update - 108(b) HRM

Hi guys, I'm just checking in regarding the Reg Agenda. For you Rob, I just left you a quick voice-mail at Sonya's request, because she's worried about getting you're ok before you are out next week. We're hoping to get quick e-mails from both of you with your concurrence on the comprise version that I sent you late last night.

Ex. 5 - Deliberative Process

From: Palmer, Scott
Sent: Wednesday, August 09, 2017 7:02 PM
To: Farber, Glenn <Farber.Glenn@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Huggins, Richard <Huggins.Richard@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) HRM

Dear Rob / Glenn, I spoke with Sonya late today after the day-long RCRA national Branch Chief's meeting to get her direction on how she'd like to proceed on this subject. In her opinion –

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Thanks, Scott

From: Palmer, Scott
Sent: Wednesday, August 09, 2017 4:52 PM
To: Farber, Glenn <Farber.Glenn@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Huggins, Richard <Huggins.Richard@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>
Cc: Openchowski, Charles <openchowski.charles@epa.gov>; Michaud, John <Michaud.John@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) HRM

Hi Rob / Hi Glenn, Thanks for getting back to us. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Thx, Scott

From: Farber, Glenn
Sent: Wednesday, August 09, 2017 4:27 PM
To: Stachowiak, Robert <Stachowiak.Robert@epa.gov>; Palmer, Scott <Palmer.Scott@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Huggins, Richard <Huggins.Richard@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>
Cc: Openchowski, Charles <openchowski.charles@epa.gov>; Michaud, John

<Michaud.John@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) HRM

Ex. 5 - Deliberative Process

From: Stachowiak, Robert
Sent: Wednesday, August 09, 2017 3:20 PM
To: Palmer, Scott <Palmer.Scott@epa.gov>; Farber, Glenn <Farber.Glenn@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Huggins, Richard <Huggins.Richard@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>
Cc: Openchowski, Charles <openchowski.charles@epa.gov>; Michaud, John <Michaud.John@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) HRM

Hi everyone –

Ex. 5 - Attorney Client Privlege & Deliberative Process

Ex. 5 - Attorney Client Privlege & Deliberative Process

I look forward to hearing your thoughts, and to continuing to work with you on this.

Thanks,

Rob S.

Robert Stachowiak
U.S. Environmental Protection Agency
Office of General Counsel (2366A)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460
(202) 564-0580

From: Palmer, Scott

Sent: Tuesday, August 08, 2017 11:44 AM
To: Farber, Glenn <Farber.Glenn@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Huggins, Richard <Huggins.Richard@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) Industry 1, 2, and 3

Hi Rob / Hi Glenn,

It's that time again – for updates to the Reg. Agenda. Attached is a copy of the most recent version for 108(b) Hard Rock Mining, from March 17, 2017. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

We simply need written concurrence via an e-mail from each of you affirming that you are ok with this version. We need a response back by mid-day tomorrow to either myself, and/or our special assistants (Meghan Radtke & Richard Huggins).

Thanks so much, Scott

From: Radtke, Meghan
Sent: Monday, August 07, 2017 2:58 PM
To: Vyas, Peggy <Vyas.Peggy@epa.gov>; Palmer, Scott <Palmer.Scott@epa.gov>
Cc: Huggins, Richard <Huggins.Richard@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>
Subject: RE: Reg Agenda Update - 108(b) Industry 1, 2, and 3

Hi Peggy and Scott,

Just a reminder that your updates are due COB August 9th.

Thanks!

Meghan

Meghan Radtke, Ph.D., Biologist

Special Assistant

Office of Resource Conservation and Recovery

Office of Land and Emergency Management

U.S. Environmental Protection Agency

Desk phone: 703-347-0229

Mobile: 703-472-8215

To: 'Sonya Sasseville (Sasseville.Sonya@epa.gov)'[Sasseville.Sonya@epa.gov]; Betsy Devlin (Devlin.Betsy@epa.gov)[Devlin.Betsy@epa.gov]
Cc: Huggins, Richard[huggins.richard@epa.gov]
From: Radtke, Meghan
Sent: Tue 9/19/2017 4:52:35 PM
Subject: FW: Introductions and Request for Meeting

CCR and 108(b)!

Betsy, we'll get your general rescheduled.

Meghan

Meghan Radtke, Ph.D., Biologist

Special Assistant

Office of Resource Conservation and Recovery

Office of Land and Emergency Management

U.S. Environmental Protection Agency

Desk phone: 703-347-0229

Mobile: Ex. 6 - Personal Phone

From: Brooks, Becky
Sent: Tuesday, September 19, 2017 12:51 PM
To: Radtke, Meghan <Radtke.Meghan@epa.gov>
Subject: RE: Introductions and Request for Meeting

Both will be touched on. Thanks.

Becky Brooks

Special Assistant

Office of Land and Emergency Management

U.S. Environmental Protection Agency

ph. 202-566-2762

From: Radtke, Meghan
Sent: Tuesday, September 19, 2017 12:49 PM
To: Brooks, Becky <Brooks.Becky@epa.gov>
Subject: RE: Introductions and Request for Meeting

Hi Becky,

Did you ever determine if the NMA meeting tomorrow is primarily on 108(b) or is CCR being covered too?

Thanks!

Meghan

Meghan Radtke, Ph.D., Biologist

Special Assistant

Office of Resource Conservation and Recovery

Office of Land and Emergency Management

U.S. Environmental Protection Agency

Desk phone: 703-347-0229

Mobile: Ex. 6 - Personal Phone

From: Brooks, Becky
Sent: Wednesday, September 13, 2017 1:59 PM
To: ORCR IO <ORCR_IO@epa.gov>; Cheatham, Reggie <cheatham.reggie@epa.gov>
Cc: Hilosky, Nick <Hilosky.Nick@epa.gov>
Subject: FW: Introductions and Request for Meeting

Heads up that you will be receiving a meeting notice for September 20, 3:15 – 4:00. Feel free to send a representative, if you can't be there. Tawny Bridgeford, Katie Sweeney, and Rich Nolan will be coming from NMA. Thanks. Becky

Becky Brooks

Special Assistant

Office of Land and Emergency Management

U.S. Environmental Protection Agency

ph. 202-566-2762

From: Davis, Patrick
Sent: Tuesday, September 12, 2017 2:28 PM
To: Bridgeford, Tawny <TBridgeford@ Ex. 6 - Personal email
Cc: Brooks, Becky <Brooks.Becky@epa.gov>
Subject: RE: Introductions and Request for Meeting

Hi Tawny,

Indeed, I remember being disappointed to have missed you when you came by last month. Thank you for restarting the conversation. Please coordinate with Becky Brooks to find a

convenient time.

Thanks,

Patrick Davis

Environmental Protection Agency

Deputy Assistant Administrator, Office of Land and Emergency Management

202-564-3103 office

Ex. 6 - Personal Phone cell

Information sent to this email address may be subject to FOIA.

From: Bridgeford, Tawny [mailto:TBridgeford@nma.org]
Sent: Tuesday, September 12, 2017 2:20 PM
To: Davis, Patrick <davis.patrick@epa.gov>
Subject: Introductions and Request for Meeting

Mr. Davis:

Good afternoon! I am the Deputy General Counsel and Vice President of Regulatory Affairs at the National Mining Association (NMA). Last month we met with Barnes Johnson and members of the team to discuss NMA's concerns with and positions regarding the proposed CERCLA financial responsibility rule for the hardrock mining industry. Unfortunately, our scheduled member fly-in did not coordinate well with your schedule at the time and we asked to move forward with the meeting with the OLEM staff. We would like to correct that scheduling issue and hopefully find a time to introduce ourselves in person and provide a quick overview of who we are and our members' priority issues under OLEM. CERCLA financial responsibility is our number one priority, but we are involved in several other issues as well (e.g., coal ash, chemical security, etc.). Please let me know if you have time over the next few weeks to meet in

person.

Look forward to hearing from you.

Regards,

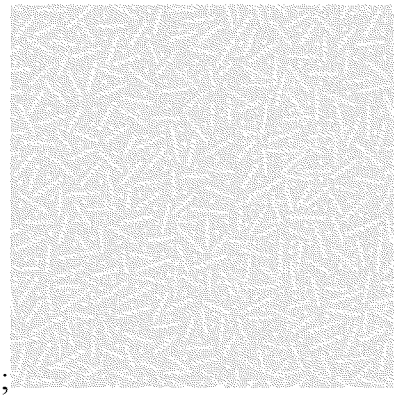
Tawny

Tawny Bridgeford
Deputy General Counsel & Vice President, Regulatory Affairs
National Mining Association
101 Constitution Ave. NW, Suite 500 East
Washington, D.C. 20001
Phone: (202) 463-2600
Direct: (202) 463-2629
tbridgeford@nma.org

To: Palmer, Scott[Palmer.Scott@epa.gov]
From: Schoenborn, William
Sent: Tue 6/13/2017 4:27:58 PM
Subject: Info on Additional Classes from Bill Kline
comprehensive database
FYI #2
FYI #1
RE: FYI: 108(b) FOIA Chris Leason Gallagher & Kennedy
request your feedback
RE: potential excluded classes
potential excluded classes
FW: follow-up meeting to discuss preamble needs
FW: follow-up meeting to discuss preamble needs
Reminder -- Review of documents re: preamble language

Don't know if you have this or not. E-mail messages from Bill Kline related to information on 108(b) Additional Classes .

To: Foster, Barbara[Foster.Barbara@epa.gov]
Cc: Schoenborn, William[Schoenborn.William@epa.gov]; Taylor, Timothy[Taylor.Timothy@epa.gov]
From: Kline, Bill
Sent: Mon 3/21/2016 6:08:14 PM
Subject: FW: follow-up meeting to discuss preamble needs



Hi Barbara. We really need to get together! Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process Please let me know what your thoughts are re: moving forward on this matter – how about after the team meeting tomorrow? Thanks.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Kline, Bill
Sent: Wednesday, March 02, 2016 3:46 PM
To: Foster, Barbara
Subject: FW: follow-up meeting to discuss preamble needs

Hi Barbara. I realize you are up to your neck with this CERCLA 108(b) hardrock rule. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process Please let me know what your thoughts are re: moving forward on this matter. Thanks – hang in there!

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Kline, Bill
Sent: Wednesday, February 24, 2016 3:51 PM
To: Foster, Barbara <Foster.Barbara@epa.gov>
Subject: follow-up meeting to discuss preamble needs

Hi Barbara. Hope all is going well. **Ex. 5 - Deliberative Process**

Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Taylor, Timothy[Taylor.Timothy@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Mon 3/7/2016 3:15:34 PM
Subject: FW: follow-up meeting to discuss preamble needs

Ex. 5 - Deliberative Process

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
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Sent: Wednesday, March 02, 2016 3:46 PM
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Ex. 5 - Deliberative Process

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ns

Ex. 5 - Deliberative Process

Please let me know what your thoughts are re: moving forward on this matter. Thanks – hang in there!

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division

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Phone: 540-341-3631
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email : kline.bill@epa.gov

From: Kline, Bill
Sent: Wednesday, February 24, 2016 3:51 PM
To: Foster, Barbara <Foster.Barbara@epa.gov>
Subject: follow-up meeting to discuss preamble needs

Hi Barbara. Hope all is going well. Ex. 5 - Deliberative Process

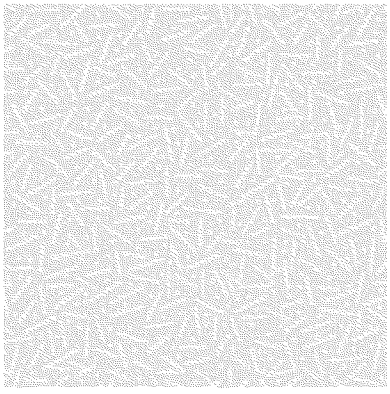
Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process Thanks.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Wed 2/15/2017 4:12:50 PM
Subject: FYI #1
MattHale_Briefing_10-1-09.doc
SussmanBriefing_110609.doc
CERCLA 108 briefing_050609.doc
Briefing_AA_081309rev.doc
AdditionalClasses_roadmap03_071410.ppt
AdditionalClasses_Next Steps Briefing2.docx
AdditionalClasses_070109.ppt
Status of Data & Analysis for Additional Sectors_090811.docx

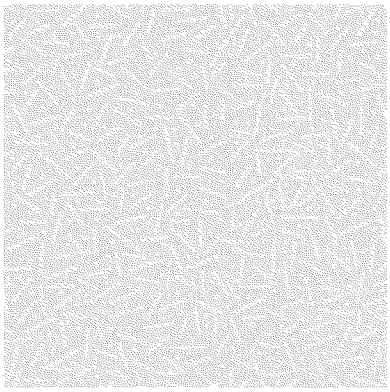


Perhaps you will find these documents to be of interest. I will send you a second email with more info.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Wed 2/15/2017 4:23:00 PM
Subject: FYI #2
NAICS 324 and 325 Preliminary Assessment of Response Costs_120910.xls
CERCLA 108(b) NAICS 324&325 Analysis Algorithm, Methods, and Caveats_11.19.10.pdf
NAICS 324 and 325_PrelimAssessment_ResponseCosts_NPL and non-NPL_122810.xlsx
2010.12.17 Draft - CERCLIS NPL Sites in NAICS 324 & 325 Universe.xls
Task 8_NPL Sites in NAICS 324_12.17.10.pdf
Additional Sectors NPL sites for analysis.xls

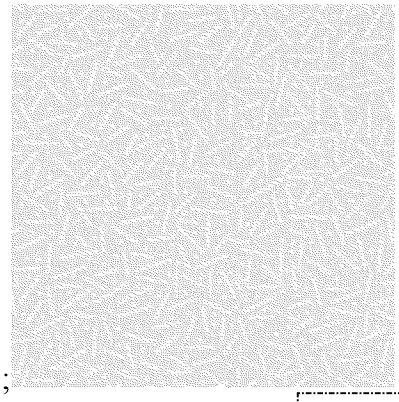


More info re: additional classes. Let me know if these are useful to you.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

To: Kelly, PatrickM[Kelly.PatrickM@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Mon 4/11/2016 2:16:28 PM
Subject: potential excluded classes
REVISED TD 02_Paper 3_Small Mines 8 21 2015.docx
REVISED TD 02_Paper 1_Mine exploration 8 21 2015.docx
REVISED TD 02_Paper 2_Placer mining 8.21.2015.docx



Good morning, Patrick and Bill. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process I would appreciate your thoughts, if possible, within the next week. Thanks for your assistance.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Benware, Richard
Sent: Thursday, April 07, 2016 11:15 AM
To: Kline, Bill
Cc: Foster, Barbara ; Palmer, Scott
Subject: RE: question re: small mines

Bill,

Ex. 5 - Deliberative Process

Best,

-Richard

==========

Richard J. Benware

Economics Team Leader, U.S. EPA

Economics & Risk Analysis Staff

1200 Pennsylvania Ave., NW

Mail Code 5305P

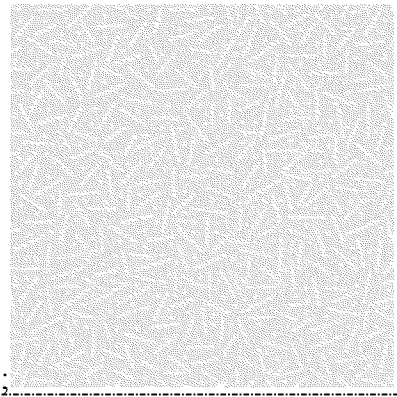
Washington, DC 20460

Email: benware.richard@epa.gov

Phone: (703) 308-0436

==========

To: Foster, Barbara[Foster.Barbara@epa.gov]
Cc: Palmer, Scott[Palmer.Scott@epa.gov]; Taylor, Timothy[Taylor.Timothy@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]
From: Kline, Bill
Sent: Thur 4/21/2016 6:51:52 PM
Subject: request your feedback
HardrockMiningPreamble_SubpartH_BillKline_rev042116.docx



Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Thank you very much.

Bill Kline
U.S. Environmental Protection Agency
Office of Land and Emergency Management

Office of Resource Conservation and Recovery (5303P)
Program Implementation and Information Division
Information Collection and Analysis Branch
Phone: 540-341-3631
Fax : 540-349-9181
email : kline.bill@epa.gov

From: Pease, Michael
Location: Call-in number: Ex. 6 - Personal Privacy conference line Conference code: Ex. 6 - Personal Privacy conference line
Importance: Normal
Subject: INVITATION: Call on CERCLA 108(b) Hardrock Mining Rule
Start Date/Time: Tue 12/6/2016 8:00:00 PM
End Date/Time: Tue 12/6/2016 9:00:00 PM

The U.S. Environmental Protection Agency expects to sign a proposed rulemaking on financial responsibility requirements for the hardrock mining and mineral processing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

We would like to offer you and other representatives of the surety, insurance and banking community the opportunity to join a call on December 6 about the proposal. The call details are below:

When: Tuesday, December 6, 2016

Time: 3:00 p.m. (Eastern)

Call-in number: Ex. 6 - Personal Privacy conference line

Conference code: Ex. 6 - Personal Privacy conference line

To: Carr, Loften[Carr.Loften@epa.gov]; Cybulski, Walter[Cybulski.Walter@epa.gov]; DiForte, Nicoletta[DiForte.Nicoletta@epa.gov]; Grandinetti, Cami[Grandinetti.Cami@epa.gov]; Hanley, Jim[Hanley.James@epa.gov]; Hillenbrand, John[Hillenbrand.John@epa.gov]; Kulpan, Bruce[Kulpan.Bruce@epa.gov]; Kyte, Larry[kyte.larry@epa.gov]; Purcell, Mark[purcell.mark@epa.gov]; Stachowiak, Robert[Stachowiak.Robert@epa.gov]; Tiago, Joseph[Tiago.Joseph@epa.gov]; Lensink, Andy[Lensink.Andy@epa.gov]; Bishlawi, Randa[bishlawi.randa@epa.gov]; Kobelski, Bruce[Kobelski.Bruce@epa.gov]; Baptista, Chrisna[Baptista.Chrisna@epa.gov]; Tomten, Dave[Tomten.Dave@epa.gov]; Salo, Earl[Salo.Earl@epa.gov]; Suriano, Elaine[Suriano.Elaine@epa.gov]; Fidis, Alexander[Fidis.Alexander@epa.gov]; Geselbracht, Jeanne[Geselbracht.Jeanne@epa.gov]; Farber, Glenn[Farber.Glenn@epa.gov]; Luzecky, Hollis[Luzecky.Hollis@epa.gov]; Marcy, Ken[Marcy.Ken@epa.gov]; Prins, Christopher[Prins.Christopher@epa.gov]; Jenkins, Robin[Jenkins.Robin@epa.gov]; Mahmud, Shahid[Mahmud.Shahid@epa.gov]; Steiner-Riley, Cara[Steiner-Riley.Cara@epa.gov]; Kline, Bill[Kline.Bill@epa.gov]; Hodes, Colette[Hodes.Colette@epa.gov]; Greenberg, Marc[Greenberg.Marc@epa.gov]; Ames, Jeremy[Ames.Jeremy@epa.gov]; Burgess, Michele[Burgess.Michele@epa.gov]; Pease, Michael[pease.michael@epa.gov]; Vyas, Peggy[Vyas.Peggy@epa.gov]; Horton, Rachel[Horton.Rachel@epa.gov]; Benware, Richard[Benware.Richard@epa.gov]; Anderson, RobinM[Anderson.RobinM@epa.gov]; Palmer, Scott[Palmer.Scott@epa.gov]; Taylor, Timothy[Taylor.Timothy@epa.gov]; Stewart, Tracey[Stewart.Tracey@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]; Krueger, Anna[Krueger.Anna@epa.gov]; Kohler, Amanda[Kohler.Amanda@epa.gov]; Krahe, Joseph[Krahe.Joseph@epa.gov]; Shimeles, Taetaye[Shimeles.Taetaye@epa.gov]; Hoffman, Wendy[Hoffman.Wendy@epa.gov]; Hofmann, Lee[Hofmann.Lee@epa.gov]; Cultice, Alyssa[Cultice.Alyssa@epa.gov]; MacDonald, Jennifer[Macdonald.Jennifer@epa.gov]; Hood, Lynne[Hood.Lynne@epa.gov]; Schoenborn, William[Schoenborn.William@epa.gov]; Guignet, Dennis[Guignet.Dennis@epa.gov]; Sheldrake, Beth[sheldrake.beth@epa.gov]; Naftz, Douglas[Naftz.Douglas@epa.gov]; Ingemansen, Dean[Ingemansen.Dean@epa.gov]; McWhirter, Lisa[McWhirter.Lisa@epa.gov]; Huff, Mark J[huff.markj@epa.gov]; Godsey, Cindi[Godsey.Cindi@epa.gov]; Kelly, PatrickM[Kelly.PatrickM@epa.gov]; Huynh-Linenberg, Jacquie[Huynh-Linenberg.Jacquie@epa.gov]; Binford, Marshall[Binford.Marshall@epa.gov]; Mott, Patricia[Mott.Patricia@epa.gov]; Aultz, Erica[aultz.erica@epa.gov]; Rountree, Jillian[Rountree.Jillian@epa.gov]; Kawakami, Cynthia[kawakami.cynthia@epa.gov]; McKim, Krista[mckim.krista@epa.gov]; Housman, Van[Housman.Van@epa.gov]; Zaragoza, Larry[Zaragoza.Larry@epa.gov]
Cc: McKenna, Elizabeth[Mckenna.Elizabeth@epa.gov]; Painter, Paula[Painter.Paula@epa.gov]; Beitin, Clara[Beitin.Clara@epa.gov]; BERMAN, TESSA[Berman.Tessa@epa.gov]
From: Foster, Barbara
Sent: Wed 1/11/2017 4:39:29 PM
Subject: 108(b) workgroup

Workgroup --

The 108(b) proposed Hardrock Mining Rule and the Additional Classes Notice are in today's *Federal Register*. The links are below:

Hardrock Mining Proposal:

https://www.gpo.gov/fdsys/pkg/FR-2017-01-11/pdf/2016-30047.pdf

Additional Classes Notice:

https://www.gpo.gov/fdsys/pkg/FR-2017-01-11/pdf/2016-30040.pdf

Barbara Foster

OSWER/ORCR/PIID

703-308-7057

To: Hofmann, Lee[Hofmann.Lee@epa.gov]
Cc: Taylor, Timothy[Taylor.Timothy@epa.gov]
From: Hodes, Colette
Sent: Wed 2/1/2017 9:34:39 PM
Subject: FW: 108(b) workgroup

Final 1/11/17 link from Barbara

Evidence document is on FR page 3475

about midway down the first column

c. Evidence…

From: Foster, Barbara
Sent: Wednesday, January 11, 2017 11:39 AM
To: Carr, Loften <Carr.Loften@epa.gov>; Cybulski, Walter <Cybulski.Walter@epa.gov>; DiForte, Nicoletta <DiForte.Nicoletta@epa.gov>; Grandinetti, Cami <Grandinetti.Cami@epa.gov>; Hanley, Jim <Hanley.James@epa.gov>; Hillenbrand, John <Hillenbrand.John@epa.gov>; Kulpan, Bruce <Kulpan.Bruce@epa.gov>; Kyte, Larry <kyte.larry@epa.gov>; Purcell, Mark <purcell.mark@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>; Tiago, Joseph <Tiago.Joseph@epa.gov>; Lensink, Andy <Lensink.Andy@epa.gov>; Bishlawi, Randa <Bishlawi.Randa@epa.gov>; Kobelski, Bruce <Kobelski.Bruce@epa.gov>; Baptista, Chrisna <Baptista.Chrisna@epa.gov>; Tomten, Dave <Tomten.Dave@epa.gov>; Salo, Earl <Salo.Earl@epa.gov>; Suriano, Elaine <Suriano.Elaine@epa.gov>; Fidis, Alexander <Fidis.Alexander@epa.gov>; Geselbracht, Jeanne <Geselbracht.Jeanne@epa.gov>; Farber, Glenn <Farber.Glenn@epa.gov>; Luzecky, Hollis <Luzecky.Hollis@epa.gov>; Marcy, Ken <Marcy.Ken@epa.gov>; Prins, Christopher <Prins.Christopher@epa.gov>; Jenkins, Robin <Jenkins.Robin@epa.gov>; Mahmud, Shahid <Mahmud.Shahid@epa.gov>; Steiner-Riley, Cara <Steiner-Riley.Cara@epa.gov>; Kline, Bill <Kline.Bill@epa.gov>; Hodes, Colette <Hodes.Colette@epa.gov>; Greenberg, Marc <Greenberg.Marc@epa.gov>; Ames, Jeremy <Ames.Jeremy@epa.gov>; Burgess, Michele <Burgess.Michele@epa.gov>; Pease, Michael <pease.michael@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>; Horton, Rachel <Horton.Rachel@epa.gov>; Benware, Richard <Benware.Richard@epa.gov>; Anderson, RobinM <Anderson.RobinM@epa.gov>; Palmer, Scott <Palmer.Scott@epa.gov>; Taylor, Timothy <Taylor.Timothy@epa.gov>; Stewart, Tracey <Stewart.Tracey@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>; Kohler, Amanda <Kohler.Amanda@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>; Shimeles, Taetaye <Shimeles.Taetaye@epa.gov>; Hoffman, Wendy <Hoffman.Wendy@epa.gov>; Hofmann, Lee <Hofmann.Lee@epa.gov>; Cultice, Alyssa <Cultice.Alyssa@epa.gov>; MacDonald, Jennifer <Macdonald.Jennifer@epa.gov>; Hood, Lynne <Hood.Lynne@epa.gov>; Schoenborn, William <Schoenborn.William@epa.gov>; Guignet, Dennis <Guignet.Dennis@epa.gov>; Sheldrake, Beth <sheldrake.beth@epa.gov>; Naftz, Douglas <Naftz.Douglas@epa.gov>; Ingemansen, Dean <Ingemansen.Dean@epa.gov>; McWhirter, Lisa <McWhirter.Lisa@epa.gov>; Huff, Mark J <huff.markj@epa.gov>; Godsey, Cindi <Godsey.Cindi@epa.gov>; Kelly, PatrickM

<Kelly.PatrickM@epa.gov>; Huynh-Linenberg, Jacquie <huynh-linenberg.jacquie@epa.gov>; Binford, Marshall <Binford.Marshall@epa.gov>; Mott, Patricia <Mott.Patricia@epa.gov>; Aultz, Erica <aultz.erica@epa.gov>; Rountree, Jillian <Rountree.Jillian@epa.gov>; Kawakami, Cynthia <kawakami.cynthia@epa.gov>; McKim, Krista <mckim.krista@epa.gov>; Housman, Van <Housman.Van@epa.gov>; Zaragoza, Larry <Zaragoza.Larry@epa.gov>
Cc: McKenna, Elizabeth <Mckenna.Elizabeth@epa.gov>; Painter, Paula <Painter.Paula@epa.gov>; Beitin, Clara <Beitin.Clara@epa.gov>; BERMAN, TESSA <Berman.Tessa@epa.gov>
Subject: 108(b) workgroup

Workgroup --

The 108(b) proposed Hardrock Mining Rule and the Additional Classes Notice are in today's *Federal Register*. The links are below:

Hardrock Mining Proposal:

https://www.gpo.gov/fdsys/pkg/FR-2017-01-11/pdf/2016-30047.pdf

Additional Classes Notice:

https://www.gpo.gov/fdsys/pkg/FR-2017-01-11/pdf/2016-30040.pdf

Barbara Foster

OSWER/ORCR/PIID

703-308-7057

To: Krueger, Anna[Krueger.Anna@epa.gov]
From: Wiggins, Lanelle
Sent: Fri 11/25/2016 4:33:03 PM
Subject: EPA response to AEMA's June 1 email/letter
SER Letter to EPA with Attachments 6-1-16.pdf
EPA 108b Financial Assurance FINAL.pdf
IMCC Letter to EPA Administrator re CERCLA 108(b).pdf

.....
,,,,,,
Lanelle Bembenek Wiggins

RFA/SBREFA Team Leader

US EPA - Office of Policy (1803A) - 1200 Penn Ave NW - Washington DC - 20460

202.566.2372

From: Wiggins, Lanelle
Sent: Tuesday, June 07, 2016 6:15 PM
To: Laura Skaer
Cc: Sasseville, Sonya ; Foster, Barbara ; kevin.bromberg@sba.gov; Waqar, Tayyaba ; Jones, Danielle ; Allen Biaggi ; Brad Moore ; Debra Struhsacker ; Eric Struhsacker ; Frank Ongaro ; Harold Roberts ; Joe Bardswich ; Laura Skaer ; Lucy Hill ; Matt Zietlow ; Patrick Rogers ; Paul Goranson ; Rachel Yelderman ; Richard Brown ; Ron Rimelman ; Tim Dyhr ; Tim Havey ; William Scales ; Barr, Linda
Subject: FW: CERCLA 108(b) FR SBREFA Pre-panel outreach

Laura,

Thank you for your letter and attachments. The questions and comments on the slides you provided are what we normally expect to get out of EPA's outreach meeting with potential SERs through discussion during the meeting and the follow-up written comments. EPA will consider your letter and attachments, as well as the June 9 meeting discussion and any additional follow-up written comments as we prepare to convene the Panel for the CERCLA 108(b) Hardrock Mining rulemaking.

Please note that EPA's June 9th meeting, and the later meeting that the Panel will have with SERs, are not intended to be covered under the Federal Advisory Committee Act (FACA). The purpose of these meetings are to exchange information and to solicit **individual** advice and recommendations from SERs, as opposed to collective advice or recommendations.

You may bring a SER helper to the meeting. Please forward me the name, affiliation, and contact information of the helper SER you intend to bring. In general, we ask that SER helpers defer to the actual SERs during meeting discussions. In addition, any written comments provided to EPA after the meetings should come directly from the actual individual SERs.

Thank you,

Lanelle Bembenek Wiggins

RFA/SBREFA Team Leader

US EPA - Office of Policy (1803A) - 1200 Penn Ave NW - Washington DC - 20460

202.566.2372

From: Laura Skaer [mailto:lskaer@miningamerica.org]
Sent: Wednesday, June 01, 2016 6:34 PM
To: Wiggins, Lanelle <Wiggins.Lanelle@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>
Cc: Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; kevin.bromberg@sba.gov; Waqar, Tayyaba (tayyaba.waqar@sba.gov) <tayyaba.waqar@sba.gov>; Jones, Danielle <Danielle_Y_Jones@omb.eop.gov>; Allen Biaggi <freelpeak@gmail.com>; Brad Moore <bmoore@polymetmining.com>; Debra Struhsacker <dstruhsacker@pershinggold.com>; Eric Struhsacker <estruhsacker@rengold.com>; Frank Ongaro <fongaro@miningminnesota.com>; Harold Roberts <hroberts@energyfuels.com>; Joe Bardswich <JoeBardswich@hotmail.com>; Laura Skaer <lskaer@miningamerica.org>; Lucy Hill <LHill@klondexmines.com>; Matt Zietlow <Matt.Zietlow@carlinresources.com>; Patrick Rogers <progers@generalmoly.com>; Paul Goranson <pgoranson@uranerz.com>; Rachel Yelderman <yelderman@comstockmining.com>; Richard Brown <rbrown@wyoben.com>; Ron Rimelman <ron.rimelman@novagold.com>; Tim Dyhr <tdyhr@nevadacopper.com>; Tim Havey <timhavey@pebblepartnership.com>; William Scales <wgscales@formcap.com>
Subject: CERCLA 108(b) FR SBREFA Pre-panel outreach

Lanelle and Linda,

Attached is a letter on behalf of the CERCLA 108(b) Financial Responsibility Rule SERs requesting answers to questions concerning the May 24, 2016 SBREFA slides and information the SERs need prior to the June 9 pre-panel outreach meeting in order to properly fulfill our role as SERs as contemplated by SBREFA and ensure that our June 9 meeting is productive and an efficient use of everyone's limited time. We also are requesting permission to engage a SER Helper.

I also have attached letters from the Western Governors' Association and the Interstate Mining Compact Commission to Administrator McCarthy expressing the states' concerns that a 108(b) financial responsibility rule will duplicate, overlap and perhaps preempt state mine regulatory programs and financial responsibility requirements.

I am happy to discuss this with you and can be reached at the telephone and email listed below.

Thank you

Laura Skaer

Executive Director

American Exploration & Mining Association

10 N Post St Ste 305

Spokane WA 99201

509-624-1158 x 16

lskaer@miningamerica.org

www.miningamerica.org

www.themoreyoudig.com

@MiningAmerica

@TheMoreYouDig

IT ALL STARTS WITH MINING

WESTERN GOVERNORS' ASSOCIATION

Matthew H. Mead
Governor of Wyoming
Chairman

Steve Bullock
Governor of Montana
Vice Chair

James D. Ogsbury
Executive Director

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1600 Broadway
Suite 1700
Denver, CO 80202

303-623-9378
Fax 303-534-7309

Washington, D.C.

400 N. Capitol Street, N.W.
Suite 376
Washington, D.C. 20001

202-624-5402
Fax 202-624-7707

www.westgov.org

March 29, 2016

Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W. (1101A)
Washington, D.C. 20460

Dear Administrator McCarthy:

Many western states rely on the hard rock mining industry for economic development and employment. Western states where mining occurs have staff dedicated to mine permitting and compliance. They ensure that hard rock mining facilities are designed, constructed and operated to minimize risks to the environment and ensure reclamation. State regulators ensure proper mine closure on both private and public lands when the time comes. They coordinate with federal land agencies to ensure bonding is adequate.

A recent D.C. Circuit court decision approved a settlement agreement negotiated by the Environmental Protection Agency (EPA) and several non-governmental organizations. It requires EPA to publish a notice of proposed rulemaking pursuant to section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) for the hard rock mining industry by December 1, 2016.[1]

Western Governors are concerned that EPA may impose additional financial assurance requirements on the hard rock mining industry. As stated in section A(3) of WGA Policy Resolution 2014-07, *Bonding for Mine Reclamation* (attached to these comments and incorporated by reference), western states have developed regulatory bonding programs to evaluate and approve financial assurance requirements for hard rock mining operations. Each western state has also developed detailed design, construction, operating, monitoring and permitting standards for hard rock mining facilities.

Governors have specific concerns with the potential introduction of EPA bonding requirements including:

- *Duplicative Federal Regulations* – Proposed federal requirements would duplicate existing state financial assurance requirements and could preempt existing state requirements for hard rock mining operations. They would require compliance with federal design, construction and

[1] Order *In re: Idaho Conservation League, et al.*, No. 14-1149 (D.C. Cir. Jan. 29, 2016).

operating standards, to the exclusion of proven state standards. These additional financial assurance requirements would impair western economies and the hard rock mining industry in America. Section B(2) of WGA Policy Resolution 2015-09, *National Minerals Policy*, reinforces the importance of the mining industry to both local and national economies. Reliable supplies of American minerals play a critical role in meeting national security needs.

- *Inappropriately Hampering Effective State Programs* – EPA has not indicated to states what, if any, problems or gaps the agency perceives in state financial assurance requirements. EPA has likewise failed to indicate that modern, state-driven standards necessitate any alternative program. Western states have the staff and expertise necessary to ensure environmental compliance, reclamation and site closure. Reclamation and closure bonding calculations are based on the unique circumstances of each mining operation, the local ecology and post reclamation land use. Local expertise allows for informed decisions on financial assurances required – based on real values over the life of the mine and after its closure. Many of the hard rock mines in the Western U.S. are on private or public lands, and at times on both. Only state regulatory agencies can oversee bonding and closure on sites with dual ownership and split mineral estate.

- *Failure to Recognize States' Primacy Role in Water Management* – Hard rock mine reclamation and bonding are required to protect water resources. States are identified under the Clean Water Act as the primary regulators of water. It is appropriate to recognize the lead and primary role of states in regulating water-related impacts incident to mine reclamation – including associated bonding requirements.

The referenced D.C. Circuit court order directed EPA to determine by December 1, 2016 whether to issue notice of proposed rulemaking on CERCLA 108(b) financial assurance requirements for (a) chemical manufacturing; (b) petroleum and coal products manufacturing; and (c) electric power generation, transmission and distribution industries. We note similar concerns regarding EPA's introduction of bonding requirements for these industries.

Prior to publishing a notice of proposed rulemaking for any of these industries EPA should consult with Governors and engage state regulators. This should occur early in the process – before rulemaking. Substantive consultation during development of rules or decisions should occur well before formal rulemaking is launched. This should include a review by Governors and state regulators of any proposals before they are sent to the White House Office of Management and Budget for finalization.

As part of early consultation on any proposals, we request that EPA provide Governors and state regulators the following:

- A detailed state consultation timeline and plan for obtaining individual state comments from Governors and state regulators;
- All technical and scientific materials and analyses used to support any proposed rule, denoting whether any such materials were peer-reviewed;
- A statement indicating how the EPA solicited ideas about alternative methods of compliance and potential flexibilities in order to reduce the economic burden placed on affected entities;
- A statement indicating how EPA solicited information from the Governors and state regulators as to whether the proposed rule will not duplicate similar state requirements;
- A copy of a federalism assessment or the reason why EPA did not complete a federalism assessment;
- Explanation of the reason existing state programs are insufficient to address the concerns and an analysis of any conflicts in the proposed rule with state programs; and
- Analysis of financial assurance instruments that would satisfy any proposed EPA requirement.

Western states are committed to environmental protection and to responsible and comprehensive regulation and bonding for hard rock mining operations. Western Governors urge you to consider the concerns raised here.

Sincerely,

Matthew H. Mead
Governor of Wyoming
Chairman, WGA

Steve Bullock
Governor of Montana
Vice Chair, WGA

cc: Honorable Lisa Murkowski, Chairwoman, Senate Energy & Natural Resources Committee;
Honorable Maria Cantwell, Ranking Member, Senate Energy & Natural Resources Committee;
Honorable Fred Upton, Chairman, House Energy & Commerce Committee;
Honorable Frank Pallone, Ranking Member, House Energy & Commerce Committee

WESTERN GOVERNORS' ASSOCIATION

Western Governors' Association
Policy Resolution 2014 - 07

Bonding for Mine Reclamation

A. BACKGROUND

1. All Western states in which mining occurs have staff dedicated to ensuring that ongoing mine operations develop and follow appropriate reclamation plans.

2. An important component of a state's oversight of mine reclamation is the requirement that mining companies provide financial assurances in a form and amount sufficient to fund required reclamation if, for some reason, the company itself fails to do so. These types of financial assurances, often referred to generically as "bonding," protect the public from having to finance reclamation and closure if the company goes out of business, or fails to meet its reclamation obligation.

3. All Western states have developed regulatory bonding programs to evaluate and approve the financial assurances required of mining companies. The states have developed the staff and expertise necessary to calculate the appropriate amount of the bonds, based on the unique circumstances of each mining operation, as well as to make informed predictions of how the real value of current financial assurance may change over the life of the mine, and even post-closure.

4. Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9608(b), requires EPA to promulgate financial responsibility requirements for industrial facilities that take into account the risks associated with their use and disposal of hazardous substances. After the Sierra Club sued EPA for failing to timely comply with this section of CERCLA, a federal District Court in California ordered EPA to do so.[1]

5. In response to the Court's ruling, EPA announced in July, 2009 that it had selected hard-rock mining as the first industry sector for which it would undertake an analysis of whether federal bonding requirements under CERCLA Sec. 108[2] were needed.

6. Since EPA's 2009 announcement, Western Governors have expressed concern that any bonding requirements that EPA may develop for the hard-rock mining industry could be duplicative of state requirements, and could even pre-empt them entirely. The Governors have also questioned whether EPA has the resources to implement

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1 *See* Sierra Club v. Johnson, 2009 WL 2413094 (N.D. Cal. 2009)

2 *See* 74 Fed. Reg. 37213 (July 28, 2009).

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reclamation bonding for hard-rock mines, since bond calculations usually reflect very site-specific reclamation needs, tasks and costs.

7. State mining agencies provided detailed comments to EPA in August 2011 on the structure and extent of each state's hard rock mining financial assurance requirements. EPA has yet to indicate if or what problems or gaps the agency has found in existing state requirements. Recently, EPA indicated that a rulemaking on this issue is not likely for at least another year.

B. GOVERNORS' POLICY STATEMENT

1. Because mine reclamation is needed primarily to protect adjacent waters, it is both appropriate and consistent with Congressional intent to recognize the states' lead and primary role in regulating water related impacts of mine reclamation, including the associated bonding. See Clean Water Act, Sec. 101(b), 33 U.S.C. § 1251(b).

2. Western states have a proven track record in regulating mine reclamation in the modern era – including for hard rock mines -- having developed appropriate statutory and regulatory controls, and are dedicating resources and staff to ensure responsible industry oversight.

3. In contrast, EPA currently has no staff dedicated to oversight of mine reclamation, or to the approval of bonding associated with mine reclamation. As a consequence, if EPA proceeds to promulgate bonding requirements for the hard-rock mining industry under CERCLA Sec. 108, it will have to create a new federal regulatory program -- an unnecessary investment of federal funds -- at a time when the federal government is trying to get its fiscal house in order.

4. Western Governors believe that states currently have financial responsibility programs in place that are working well, and that functional programs should not be duplicated or pre-empted by any program developed by EPA pursuant to Section 108(b) of CERCLA.

C. GOVERNORS' MANAGEMENT DIRECTIVES

1. The Governors direct the WGA staff, where appropriate, to work with Congressional committees of jurisdiction and the Executive Branch to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to develop, as appropriate and timely, detailed annual work plans to advance the policy positions and goals contained in this resolution. Those work plans shall be presented to, and approved by, Western Governors prior to implementation. WGA staff shall keep the Governors informed, on a regular basis, of their progress in implementing approved annual work plans.

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Interstate Mining Compact Commission

445-A Carlisle Drive, Herndon, VA 20170
Phone: 703/709-8654 Fax: 703/709-8655
Web Address: www.imcc.isa.us E-Mail: gconrad@imcc.isa.us or bbotsis@imcc.isa.us

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GOV. NIKKI HALEY
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Tennessee

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Texas,

GOV. EARL RAY TOMBLIN
West Virginia

GOV. MATT MEAD
Wyoming

ASSOCIATE MEMBERS

GOV. JOHN HICKENLOOPER
Colorado

GOV. SUSANA MARTINEZ
New Mexico

EXECUTIVE DIRECTOR
GREGORY E. CONRAD

May 3, 2016

The Honorable Gina McCarthy
Administrator
Office of the Administrator – Mail Code 1101A
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator McCarthy:

Please find attached a resolution that was unanimously adopted by the member states of the Interstate Mining Compact Commission at its recent annual meeting concerning a rulemaking being undertaken by the U.S. Environmental Protection Agency (EPA) concerning financial assurance requirements under Section 108(b) of the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA). We appreciate the effective working relationship that we have enjoyed with the Office of Land and Emergency Management and look forward to addressing the several concerns set forth in the resolution over the coming months, particularly with regarding to federalism and preemption.

Sincerely,

Gregory E. Conrad
Executive Director

cc. Barnes Johnson

"Serving the States for Over 40 Years"

Resolution

Interstate Mining Compact Commission

Re. Financial Assurance for Hardrock Mine Reclamation

BE IT KNOWN THAT:

WHEREAS, the development of our Nation's minerals necessarily involves the surface disturbance of the land and often results in impacts to air and water resources; and

WHEREAS, state and national laws provide for the reclamation of land disturbed by mining and for the protection of human health and the environment related to those disturbances; and

WHEREAS, with regard to hardrock and noncoal minerals development, state governments have largely taken the lead in fashioning regulatory programs that address environmental protection and reclamation requirements; and

WHEREAS, an important component of state regulatory programs is the requirement that mining companies provide financial assurances in a form and amount sufficient to fund required reclamation if, for some reason, the company fails to do so in accordance with the state program. These types of financial assurances, often referred to as bonding, protect the public from having to finance reclamation and closure if the company goes out of business or fails to meet its reclamation obligation; and

WHEREAS, all states have developed regulatory bonding programs to evaluate and approve the financial assurances required of mining companies. States have also developed the staff and expertise necessary to calculate the appropriate amount of bonds, based on the unique circumstances of each mining operation, and to make informed predictions of how the real value of current financial assurance may change over the life of the mine, including post-closure; and

WHEREAS, Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C Sec. 9608(b), requires that the U.S. Environmental Protection Agency (EPA) consider promulgating financial responsibility requirements for industrial facilities that take into account the risks associated with their use and disposal of hazardous substances; and

WHEREAS, pursuant to a federal court decision in California (*Sierra Club v Johnson*, 2009 WL 2413094 (N.D. Cal. 2009)) which ordered EPA to move forward with the rulemaking, EPA announced in July 2009 that it selected hardrock mining as the first industry sector for which it would develop financial responsibility requirements under CERLCA Section 108(b) (74 Fed. Reg. 37213, July 28, 2009); and

WHEREAS, pursuant to a D.C. Circuit court decision (Order *In re: Idaho Conservation League, et al.*, No. 14-1149 (D.C. Cir. Jan. 29, 2016)) approving a settlement agreement between the EPA and several non-governmental organizations, EPA is required to publish a notice of proposed rulemaking regarding CERCLA Sec. 108(b) financial assurance for the hardrock mining industry by December 1, 2016; and

WHEREAS, in preparation for its rulemaking, EPA undertook an analysis of reclamation bonding requirements in approximately 20 state regulatory programs throughout the U.S.; and

WHEREAS, since the initiation of EPA's rulemaking initiative, a number of IMCC member states have expressed concern than any bonding requirements that EPA may develop for the hardrock and noncoal mining industry could be duplicative of state requirements, and could even preempt them entirely under EPA's reading of Section 114(d) of CERCLA. The states have also questioned whether EPA has the resources to implement reclamation bonding for hardrock and noncoal mines, since bond calculations usually reflect site-specific reclamation needs and costs; and

WHEREAS, the states are concerned that EPA may be attempting to fill alleged "gaps" in state reclamation bonding programs that either may not exist or that are unrelated to the purpose of a reclamation bonding program;

NOW THEREFORE BE IT RESOLVED THAT THE INTERSTATE MINING COMPACT COMMISSION:

Recognizes the states' lead and primary role in regulating the environmental impacts associated with hardrock and noncoal mining operations within their borders, including financial assurance requirements for reclamation; and

Affirms that IMCC member states are committed to environmental protection and to responsible and comprehensive regulation and bonding for hardrock mining operations; and

Affirms that the states have a proven track record in regulating mine reclamation, having developed appropriate statutory and regulatory controls and dedicated resources and staff to ensure full and effective implementation of their regulatory programs; and

Believes that the states currently have financial responsibility programs in place that are working well and as such should stand in-lieu of federal requirements under Section 108(b) of CERCLA; and

Recommends that an independent, impartial body (such as the National Academy of Sciences) conduct a study to review financial responsibility requirements under state

regulatory programs to determine their sufficiency, to identify any serious gaps, and to recommend whether a federal rulemaking on the matter is needed; and

Urges the EPA to engage with state regulators through the IMCC prior to publishing a notice of proposed rulemaking regarding CERCLA Sec. 108(b) financial assurance for the hardrock mining industry, which should include substantive consultation with and provision of proposals to state regulators before formal rulemaking is launched; and

Requests that EPA provide to state regulators the following: a detailed state consultation timeline and plan for obtaining individual state comments; all technical and scientific materials and analyses used to support any proposed rule, denoting whether any such materials were peer-reviewed; a statement indicating how the EPA solicited ideas about alternative methods of compliance and potential flexibilities in order to reduce the economic burden placed on affected entities; a statement indicating how EPA solicited information from state regulators as to whether the proposed rule will duplicate similar state requirements; a copy of a federalism assessment or the reason why EPA did not complete a federalism assessment; explanation of the reason existing state programs are insufficient to address financial assurance concerns and an analysis of any conflicts in the proposed rule with state programs; and an analysis of financial assurance instruments that would satisfy any proposed EPA requirement

Issued this 20th day of April, 2016

ATTEST:

Gregory E. Conrad

Executive Director

American Exploration & Mining Association

10 N Post St. Ste. 305 | Spokane WA 99201-0705
P. 509.624.1158 | F. 509.623.1241
info@miningamerica.org | www.miningamerica.org

June 1, 2016

Lanelle Wiggins
RFA/SBREFA Team Leader
US EPA Office of Policy
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

Linda Barr
Economist
US Environmental Protection Agency
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

Sent via email

Re: CERCLA 108(b) Financial Responsibility SBREFA Pre-panel Outreach

Dear Lanelle and Linda:

This letter is written on behalf of the hardrock mining SERs and concerns the pre-panel phase of the CERCLA 108(b) SBREFA process and the introductory meeting/conference call on Thursday June 9, 2016.

I have been in communication with the SERs and confirmed that they have reviewed and studied the slides presented at the May 17, 2016 public webinar. I also have confirmed that the SERs have reviewed, studied and analyzed the SBREFA slides attached to your May 27, 2016 email advising of the pre-panel introductory meeting. On behalf of the SERs, we are requesting that EPA skip or dispense with the slide presentation and, after introductions, move into addressing questions and comments on the slides and the proposed rule. We believe this will ensure that the introductory meeting is productive, useful for all parties, and an efficient use of everyone's limited time.

Our examination and study of the SBREFA slides raises several questions and a need for additional information which we would like answered/provided prior to the June 9th meeting. These questions and information requests, identified by slide, are attached to this letter. The SERs would appreciate receiving answers and the requested information on or before June 7, 2016. The SERs will not be able to properly fulfill their role as contemplated by SBREFA without the answers and information requested. Receiving answers to these questions and the information requested prior to the June 9 meeting will ensure a more productive, efficient and useful introductory meeting.

In addition, the SERs have developed a list of questions and information absolutely essential to fulfilling the role of SERs under SBREFA in the Small Business Advocacy Review Panel (SBAR) process. A list of those questions and additional information needed also is attached to this letter as Attachment II.

SER Helper

The SERs request approval to bring a SER helper to the introductory meeting to assist the SERs in their review, analysis and comment on the proposed rule. Identifying the proper elements of a CERCLA 108(b) financial assurance responsibility rule and calculating financial assurance is a highly technical, highly specialized field. While the SERs represent a number of important fields of responsibility with respect to environmental management of mine sites and implementing existing federal and state financial assurance requirements, the SERs do not possess the knowledge and expertise to develop and analyze models and the underlying statistical analysis and formulae that make up the model. Therefore, the SERs request approval to engage a SER helper in the CERLA 108(b) Financial Responsibility SBAR process who is an expert in modeling and calculating financial assurance.

Thank you for your timely consideration of these requests. I am available to discuss this with you prior to the June 9 meeting. My telephone number is 509-624-1158 x16; email lskaer@miningamerica.org.

Yours truly,

Laura Skaer

Laura Skaer
Executive Director

Attachments

cc: Sonja Sasseville, Acting Director Program Implementation and Information Division, US Environmental Protection Agency.
Barbara Foster, CERCLA 108(b) Rule Writing Team, US Environmental Protection Agency
Kevin Bromberg, SBA Office of Advocacy
Tayyaba Waqar, SBA Office of Advocacy
Danielle Jones, Office of Management and Budget
All SERs

ATTACHMENT I to June 1 SER letter to EPA

SER Questions Concerning the May 24, 2016 SBREFA Slides

Slide 3 - Background: CERCLA 108(b) Financial Responsibility

* EPA calculations show that, through FY2011, the Agency had spent approximately $4.6 billion to clean up hard rock mines and mineral processors.

Please provide detail for this statement by identifying by name and location the hardrock mine sites and mineral processor sites, the amount spent by EPA at each site, the dates when those monies were spent, and provide a copy of the spreadsheets or documents used to calculate or arrive at $4.6 billion. Also, identify which of those sites are on the NPL.

* EPA also intends for the rule to create financial incentives for improved mining practices that reduce financial responsibility costs where existing practices ultimately may also help reduce risks and costs to the Superfund program.

Question 1 -- Please identify the improved mining practices EPA believes will be incentivized by a CERCLA 108(b) financial responsibility rule.

Question 2 --What mining practices would be different under a CERCLA 108(b) rule than under current BLM, USFS, states' mining and financial assurance regulations?

Slide 6 – CERCLA 108(b) Financial Responsibility Proposed Rule Structure

* CERCLA is a response program that addresses CERCLA Section 107 liabilities – response costs, natural resource damages (NRD), and health assessments – and is distinct from closure and reclamation requirements of federal and state mine permit programs.

The federal land management agency regulations (BLM 43 CFR 3809 regulations (3809.420 and 3809.500 et. seq.), the U.S. Forest Service (USFS) 36 CFR 228A regulations (228.8 and 228.13)),and the states mine regulatory and financial assurance programs (*See* Western Governors' Association (WGA) letter to EPA Administrator McCarthy dated March 29, 2016 and Interstate Mining Compact Commission (IMCC) letter dated May 3, 2016)), focus on minimizing risks to the environment and include requirements, among others, for managing solid waste and water, minimizing acid rock drainage, managing cyanide use, ensuring mine operations comply with all applicable environmental laws and regulations, and providing, where appropriate, long term trusts to ensure post closure treatment and maintenance operations to ensure compliance with Clean Water Act standards.

These requirements directly minimize the risk of a future hazardous substance release and ensure money is set aside to financially cover an adverse event if one should happen. These requirements also are working as evidenced by the BLM's and USFS' response to the March 8, 2011 letter from Senator Murkowski that a combined 3,334 mining plans of operations approved

since 1990 and not one of those sites has been placed on the CERCLA NPL. In other words, the BLM, USFS and states' requirements are the "functional equivalent" of a CERCLA 108(b) financial responsibility rule. For example, BLM's 43 CFR 3809 surface management regulations for hardrock minerals provides at §3809.552(c):

> *(c) When BLM identifies a need for it, you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long-term treatment to achieve water quality standards and for other long term, post-mining maintenance requirements. The funding must be adequate to provide for construction, long-term operation, maintenance, or replacement of any treatment facilities and infrastructure, for as long as the treatment and facilities are needed after mine closure. BLM may identify the need for a trust fund or other funding mechanism during plan review or later.*

Question 1 --In view of the fact the federal land management agencies' and states' mine regulatory and financial assurance programs address more than closure and reclamation, please explain how addressing CERCLA § 107 liabilities are "distinct from closure and reclamation requirements of federal and state mine permit programs."

Slide 10 – A Preliminary Clarification: What the Rule Does *Not Do*

As mentioned above, both WGA and IMCC disagree with EPA's assertion that proposed CERCLA 108(b) financial assurance requirements distinctly different from existing state and federal requirements for hardrock mining facilities.

Question 1 -- How is EPA going to address the significant concerns raised by the WGA and IMCC in its proposed rule? It appears from the information presented at the May 17, 2016 webinar and in the SBREFA slides that these concerns have largely gone unaddressed.

Question 2 -- Has EPA this year consulted with the USFS, BLM, or other relevant federal agency/department on the Congressional directive to complete a plan to avoid duplication with existing federal regulations? Will there be an interagency review of any proposal before it is finalized so the USFS, BLM, the Nuclear Regulatory Commission and any other appropriate federal department or agency has an opportunity to review the proposal and provide comments before it is finalized?

Question 3 -- What financial responsibility requirements will be different under a CERCLA 108(b) rule than under current BLM, USFS and state requirements?

Question 4 -- How is EPA going to factor in reductions for compliance with existing state and federal laws and regulations? For example, if a facility has a financial assurance instrument that covers $50 million in long-term water quality treatment and monitoring, will EPA reduce the CERCLA 108(b) financial assurance requirement commensurate (dollar for dollar) with that other existing obligation?

Slide 11 – Universe of Facilities to be Regulated

* EPA would also include in the proposed rule primary processing activities located at or near the mine site that are under the same operational control as a regulated mine.

Question 1 --Is EPA proposing to apply a CERCLA 108(b) financial responsibility rule to inactive mine operations, either those that are in the process of or have been closed or are co-located with operating facilities?

Question 2 --Does EPA intend to apply a CERCLA 108(b) financial responsibility rule to closed, inactive or abandoned mine site not collocated with an active mine site or facility?

Question 3 --Does processing include beneficiation?

Slides 13 & 14 – Financial Responsibility Scope and Amount

* To determine the amount of financial responsibility required for response costs, the Agency is developing a formula that would identify an amount of financial responsibility to reflect the primary site conditions and characteristics that would affect the costs of removal or remedial action.

Question 1 -- Please provide the formula, details and any spreadsheets EPA will use to determine the amount of financial responsibility that reflects primary site conditions and characteristics and how those primary site conditions and characteristics were determined.

Question 2 -- What equations are built into the spreadsheets? Please identify and list. Please provide a copy of the equations and spreadsheets.

* The formula would assign dollar values for a facility based on facility and unit characteristics (e.g., open pits, waste rock, tailings, heap leach, process ponds, water management, and operations, maintenance, and monitoring).

Question 3 -- What is EPA using as its data source for the formula? Is EPA using mine sites on the NPL? Is EPA using data from active mines sites? How was this data obtained? Please provide a copy of the underlying data. Is EPA using certain databases or documents to pull this information and assign dollar values to the various facilities in the formula? Please identify these sources and provide a copy of the sources and data used to assign dollar values in the formula.

Question 4 -- There are a number of legacy mining and mineral processing sites on the Superfund NPL that involve sites constructed and operated tens to a hundred years prior to modern environmental laws, regulations and financial responsibility requirements. Those sites were not designed, built and operated to minimize impacts to the environment and prevent release of hazardous substances during operation and at closure. EPA in its "Phase 1" study reviewed NPL sites listed during or after 1990 and then confirmed whether the on-site activities occurring during or after 1990 contributed to the contamination. According to EPA:

> The intent of filtering sites in this manner was to control for the effect of 'legacy' waste management practices by removing sites that are on the NPL only because of legacy activity. This step was taken under the assumption that, by 1990, regulatory programs were sufficiently in place to limit the risks posed by some industry practices.

In developing the formula and selecting appropriate data, has EPA again used a similar filtering technique to ensure that legacy sites are not used to develop the formula and the cost inputs, and thus grossly overestimating the liability risk? If not, please explain what type of filtering technique the agency is using in developing the formula.

* The Agency is considering a fixed amount of financial responsibility for health assessment costs and a fixed percent of aggregate financial responsibility for natural resource damages, that would be required at all facilities.

Question 5 -- Health assessment costs and natural resource damages are very site-specific depending on the type of release. How can EPA create a one-size-fits-all amount for these costs when CERCLA 108(b) only allows for financial assurance "consistent with the degree and duration of risk associated" with the various activities on a site? How is EPA going to ground truth these "fixed" and "fixed percent" amounts so as not to violate the statute and impose an unnecessary financial burden on facilities?

Slide 15 – Relationship of Section 108(b) Financial Responsibility to State, Tribal and Local Government Law

* In particular, Section 108(b) financial responsibility is designed to assure that funds are available to pay for CERCLA liabilities, whereas EPA's review of state law financial responsibility requirements to date indicates many are designed to assure compliance with state regulatory requirements, and thus are not "in connection with liability for the release of a hazardous substance" under Section 114(d).

Question 1 --See statements and questions under **Slide 6.** In view of the fact the states' mine regulatory and financial assurance programs address more than closure and reclamation, *i.e.*, minimize adverse impacts to the environment and assure long term water quality, please explain in detail how state mine regulatory and financial responsibility programs are not "in connection with liability for the release of a hazardous substance" under Section 114(d).

Slide 16 - Relationship of Section 108(b) Financial Responsibility to Other Federal Law

* EPA has evaluated the applicability of Section 108(b) requirements at facilities where other federal financial responsibility requirements apply.

Question 1 --Please list the facilities EPA evaluated and include whether the facilities are currently regulated by BLM, USFS, a state or a combination of these.

* EPA believes that Section 108(b) requirements, established to address CERCLA liabilities, are distinct from federal closure and reclamation bonding requirements imposed under other statutes.

Question 2 --*See* statements and questions under **Slide 6.** Please explain in detail how § 108(b) requirements "are distinct from federal closure and reclamation bonding requirements imposed under other statutes."

* It is important to note that EPA intends the Section 108(b) financial responsibility amount to account for environmentally protective practices already in place, including those required by other regulations.

Question 3 --How is EPA accounting for environmentally protective practices required by existing federal and state environmental laws and regulations, including the BLM 3809 regulations, the USFS 228A regulations and applicable state requirements? How is EPA assigning a value to those requirements and practices? How is EPA calculating those reductions? Please provide a copy of the data used to assign values and calculate reductions.

Slide 17 – Market Study

Question 1 --Who has the agency consulted with in the financial and insurance sectors? Please provide the names of individuals and their companies and the dates of those meetings or consultations.

Question 2 --Is EPA continuing that consultation process as it develops the rule? Please provide the date or dates when EPA intends to meet with representatives of the financial and insurance sectors and the names of the representatives and their companies with whom EPA intends to continue the consultation process.

Question 3 --Did EPA provide the insurance, surety, and other appropriate financial sectors with the formula/model EPA is developing, the cost assumptions and calculations, and potential duration of the obligation in advance of writing the draft report? Did EPA seek the advice of these sectors on these details? If not, how is EPA going to ground-truth its report on market capacity? Will EPA be releasing this information to the Senate?

Question 4 --A key component of the rule that will significantly impact the capacity of the market to provide necessary and affordable financial responsibility instruments is the length of time in which a company is obligated to provide financial assurance and when that obligation will cease. For example, a requirement to secure financial assurance for a duration of 10 years past closure is far less onerous than a requirement to secure financial assurance for 30 or 50 years past closure. What timeframes has the agency provided to the financial and insurance sectors for their evaluation of market capacity?

Slide 18 – Financial Responsibility Scope and Amount – HRM Financial Responsibility Formula

* The baseline could then be reduced through demonstrating that current controls at the facility are in place.

Question 1 -- How is EPA determining which controls warrant reductions in the baseline calculation? What sources is EPA using to make these decisions? What are the selection criteria used to extract the data from the sources? How is EPA determining how to calculate the reductions (i.e., how is EPA choosing which technologies get what reduction)?

Question 2 -- Is EPA consulting with industry, the federal land management agencies and the states on the operational controls and best management practices currently used at facilities to ensure the list is inclusive of these controls and practices?

Slide 19 – EPA has identified several categories it is currently analyzing to obtain statistically-derived factors for use in the formula, including components:

Please provide a complete list of the basis and assumptions used to obtain the "statistically-derived factors."

Slide 20 – HRM Financial Responsibility Formula: Examples of Expected Formula Inputs

Question 1 -- How did EPA identify these site features for inclusion in the model? What data sources did EPA use? What are the selection criteria used to extract the data used from the data sources? Is this intended to be a complete and exhaustive list?

Slide 21 - HRM Financial Responsibility Formula: Examples of Expected Formula Reductions

* EPA is looking at current engineering controls as the basis for reductions to the baseline amount

Question 1 -- How is EPA determining which controls warrant reductions in the baseline calculation? What sources is EPA using to make these decisions? How is EPA determining how to calculate the reductions (i.e., how is EPA choosing which technologies get what reduction)?

Question 2 -- Is EPA consulting with industry, BLM, USFS and the states on the operational controls and best management practices currently used at facilities to ensure the list is inclusive of these controls and practices?

Slide 27 - SBA defined Small Mine Example and Slide 28 - SBA defined Small Mine Example compared with Two large Mines Examples

Question 1 --How did EPA calculate the amount of CERCLA 108(b) financial responsibility prior to giving credit for engineered controls and best practices? Were those amount obtained from engineering handbooks? If so, please list the handbooks used.

Question 2 --We understand EPA has identified 64 mining and mineral processing sites from which cost response data was obtained. Please identify those sites and the selection criteria used to identify those sites. How many of those sites are on the NPL? Which sites are mining sites? Which sites have co-located mineral processing or beneficiation activates? Which sites, if any, are stand-alone mineral processing of beneficiation sites?

Question 3 -- Please describe in detail how EPA came up with the credit reductions for best practices? What data sources were used and how are the calculations done? What are the selection criteria used to extract the data from the sources?

Question 4 --Is there a list of engineered controls and best practices? Please provide that list. With whom did EPA consult to develop a list of engineered controls and best practices? Will industry be able to add to that list? Will the list be peer reviewed in this rulemaking process?

Question 5 --How is the agency reducing a CERCLA 108(b) financial responsibility obligation to take into consideration the bonding requirements (either state or federal) that cover the same type of long-term liabilities? For example, if a facility already has a $50 million trust for long-term water quality and maintenance will the agency reduce any CERCLA 108(b) liability by the amount of the trust fund?

Question 6 -- How did EPA choose the types of instruments that would be available for each financial responsibility obligation? How did EPA calculate annualized instrument cost for each instrument?

Slide 29 - Request input from Potential SERs on issues related to:

* An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule

Response 1 --Please see the Federal Land Policy and Management Act section 302(b) (43 U.S.C. 1732(b) last sentence); BLM 43 CFR 3809 Regulations and the USFS 36 CFR 228A regulations. BLM Surface Management Handbook, H-3809-1; USFS *Training Guide for Reclamation and Administration,* adopted in April 2004; USFS Forest Service Manual 2800; July 24, 2015 memo from USFS Chief Tom Tidwell concerning USFS authority to require long term trusts to address post closure liabilities; Nuclear Regulatory Commission rules at 10 CFR Part 40, Appendix A, criterion 9.

* A description of any significant alternatives to the proposed rule which accomplish the stated objectives of the applicable statutes and which minimize any significant economic impact of the proposed rule on small entities

Response 2

A. Defer to the existing federal land management agencies' and states' environmental regulations and financial responsibility programs because there is complete overlap and a separate CERCLA 108(b) financial responsibility rule is unnecessary to protect the taxpayer and the Superfund. The federal land management agencies' and states' regulatory programs are designed to minimize adverse impacts to the environment and prevent releases of hazardous substances and their financial responsibility programs are the functional equivalent of a CERCLA 108(b) financial responsibility rule.
B. Identify if there are any serious gaps in the existing federal and state requirements and allow the federal land management agencies and states to address and fill those gaps.
C. Additional ideas to be provided as the SBAR process develops.

Attachment II to June 1 SER letter to EPA

The hardrock mining SERS respectfully request that EPA answer the following questions and provide the requested information prior to the June 9 pre convening conference. Answering these questions and providing this information prior to the June 9 will help ensure a more productive meeting and efficient use of our limited time.

1. Please provide the model EPA will use to calculate CERCLA 108(b) financial responsibility.
2. EPA has indicated it is developing statistically-derived factors to use in the formula. Please identify in detail the basis and assumptions EPA is using in obtaining the statistically –derived factors.
3. Please provide the cost data, engineering data, and underlying formulae that the model will use or otherwise inform the model; Where did EPA obtain the costs and data? Is EPA using costs from Superfund cleanup of pre-regulated mines?
4. How is the HAA amount determined? What is justification for a fixed amount when each mine site is unique?
5. How is the NRD percentage determined? What is justification for a fixed amount when each mine site is unique?
6. Please provide a complete list of BMPs considered under the proposed rule as model inputs or otherwise used to determine credit reductions in the amount of required financial responsibility.
7. Please provide a complete list of engineering controls considered under the proposed rule as model inputs or otherwise used to determine credit reductions in the amount of required financial responsibility.
8. Please provide a complete list of site features inputs used in developing the model. We understand EPA has identified 64 mining and mineral processing sites from which cost response data was obtained. Please identify those sites and the selection criteria used to identify those sites. How many of those sites are on the NPL? Which sites are mining sites? Which sites have co-located mineral processing or beneficiation activates? Which sites, if any, are stand-alone mineral processing or beneficiation sites?
9. Where in the mine life cycle would CERCLA 108(b) financial responsibility attach? Does it have to be in place before operations in an approved plan of operations begin? EPA has indicated that one of the acceptable financial responsibility instruments is Trust Funds. Will EPA allow trust funds to be funded over the life of the mine or will EPA require full funding at the beginning of operations? Is the amount negotiable or appealable? To whom?
10. Please provide details on the evaluation and timing of release of CERCLA 108(b) financial responsibility instruments. How would it work? How long after a facility closes?

11. Financial assurance capacity study—who did EPA consult? What did EPA provide the companies? Is the study ongoing? Did EPA inquire about collateral requirements in order to obtain a financial responsibility instrument? What will EPA do if the financial assurance and insurance industries are unwilling or unable to offer financial instruments that comply with a CERCLA 108(b) rule?
12. Please demonstrate in detail how CERCLA 108(b) requirements are different than BLM/USFS/states' reclamation, closure, water and waste management financial assurance requirements.
13. The BLM & USFS follow an adaptive management protocol that requires monitoring to collect data the agencies and companies can use to determine 1) if their facility is functioning properly and complying with permit requirements and limits; and 2) to provide an early warning system to indicate if a problem may be developing so that a proper response can be developed and implemented. Both BLM and USFS have ample statutory and regulatory authority to increase financial assurance in response to identified problems. For example, BLM's surface management regulations at 43 CFR §3809.552(c)provides:

    > *(c) When BLM identifies a need for it, you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long-term treatment to achieve water quality standards and for other long term, post-mining maintenance requirements. The funding must be adequate to provide for construction, long-term operation, maintenance, or replacement of any treatment facilities and infrastructure, for as long as the treatment and facilities are needed after mine closure. BLM may identify the need for a trust fund or other funding mechanism during plan review or later.*

    Has EPA considered and discussed with BLM and USFS their adaptive management response to mine site monitoring data?
14. Has EPA conducted a credit rating survey for the range of entities, including small businesses that will be subject to a CERCLA 108(b) financial responsibility requirement? Please provide a copy of that survey.
15. Is EPA assuming that all currently operating mines and all future mines pose a risk of Section 107 liabilities, Natural Resource Damages and Human Health Assessment costs? How does EPA reconcile this with the fact that no mine permitted on federal land since 1990 has been added to the NPL? Do this mean the risk has been reduced to the point that no additional financial assurance is required?
16. What is EPA's budget for implementing and administering any CERCLA 108(b) rule? This information is needed to assure timeliness and responsiveness to small businesses.

To: Barr, Linda[Barr.Linda@epa.gov]
From: BNA Highlights
Sent: Wed 1/11/2017 3:14:00 AM
Subject: Jan. 11 -- BNA, Inc. Daily Environment Report

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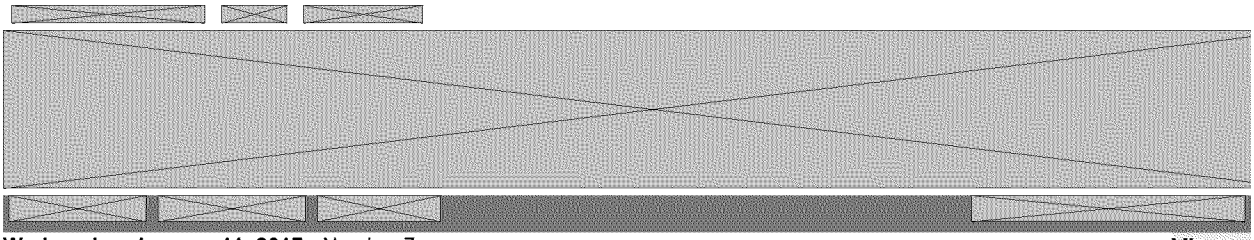

Wednesday, January 11, 2017 · Number 7

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LEADING THE NEWS

EPA
Possible Ethical Dilemma for Sessions Could Complicate Pruitt's Nomination
Scott Pruitt's chances of becoming the next EPA administrator face a significant roadblock if Sen. Jeff Sessions heeds calls to recuse himself from voting on the nomination. But while a Democratic senator and others are pressuring...

NEWS

Air Pollution
China's Clean Air Bid Scares Rivals in Duel Over Dirty Fuel
China's recent push to clean up its air is leaving some of its neighbors feeling threatened....

Air Pollution
Senator Seeks 10-Year Delay of EPA Ozone Rule in Budget Amendment
An Arizona Republican is launching one of the first of what are likely to be several attempts to delay or roll back the Environmental Protection Agency's ozone rule, with an amendment he hopes to attach to a budget resolution being debated...

Air Pollution
VW Closes in on $4.3 Billion U.S. Accord in Diesel Scandal
Volkswagen AG is closing in on a deal to pay $4.3 billion in criminal and civil penalties to settle a U.S. probe into the rigging of diesel-powered cars to cheat emissions tests....

Biodiversity
Areas Along China's Yangtze River to Set Boundaries on Development

Eleven provinces along China's most important river, the Yangtze, must establish protected zones where most future development will be banned, the government announced....

Budget
California Budget Plan Calls for Carbon Trading Program Extension
California Gov. Jerry Brown (D) wants the Legislature to pass an "urgency" measure to extend the state's carbon cap-and-trade program beyond 2020....

Budget
House Appropriations Subcommittees Retain Chairmen
Rep. Ken Calvert (R-Calif.) will once again lead the Appropriations Committee Interior and Environment Subcommittee, which has jurisdiction over the Environmental Protection Agency and Interior Department, the full committee said Jan....

Chemicals
Rocket Fuel Chemical Increasingly Found in Food, Agency Says
Young children in the U.S. are more exposed to perchlorate, a toxic chemical that can affect hormone production, through their food than they were a decade ago, federal researchers found....

Climate Change
Bipartisan Caucus Wants to Engage Trump on Climate Change
The fledgling Bipartisan Climate Solutions Caucus wants to engage the incoming Trump administration on climate change policy in the new Congress after the group spent much of its first year raising awareness and building its membership....

Climate Change
Businesses Tout Economic Benefits of Paris Climate Deal to Trump
More than 600 companies made the economic case Jan. 10 for keeping the U.S. in the international Paris climate deal in a bid to woo support from businessman and President-elect Donald Trump, who has teased pulling the country out of the agreement....

Coal Mining
Can West Virginia's New Governor Save Coal Country?
Jim Justice—6 feet 7 inches, 375 pounds, rumpled in the extreme—has the friendly, shambling demeanor of a high school basketball coach, which he's been for decades. He's also the richest man in West Virginia, with...

Coal Mining
Save Stream Protection, Methane Rules, Rep. Grijalva Urges
The ranking member on the House Natural Resources Committee reached out to lawmakers of both parties Jan. 9 in a bid to hold the line on two recent environmental rules that Republicans have already said they want to claw back....

Congress
Tillerson Must Answer for Trump, Big Oil, Even Putin in Hearing
Rex Tillerson helped seal multibillion-dollar deals from Venezuela to Russia as Exxon Mobil Corp.'s CEO. Now senators weighing his nomination for secretary of state will want to know if he can be as effective working for the U.S.—even...

Emissions Trading
EU Faces More Wrangling on Carbon Reform as Malta Becomes Chair
The European Union is poised for months of political wrangling over a post-2020 overhaul of the region's ailing carbon market after differences on how ambitious the reform should be kept governments from reaching an agreement last...

Endangered Species
Bee Protections May Sting Pesticide Use, Construction Work
A federal decision to list a bumblebee species as endangered could have big impacts on pesticide use and construction activity in the eastern U.S....

Energy
Bill Encouraging Energy Efficiency in Agencies Passes House
A bill that encourages federal agencies to explore ways to use energy-efficiency technologies passed the House under rules that sidestep an actual vote. ...

Energy
China Aims for 15 Percent Energy Intensity Cut by 2020
China's central government announced a national goal to cut energy consumption per unit of gross domestic product by 15 percent by the end of 2020, when compared to 2015 levels....

Energy
NRG, JX Nippon Open $1B Clean Coal Power Project in Texas
U.S. power generator NRG Energy Inc. and Japanese energy producer JX Nippon Oil & Gas Exploration Corp. have finished the world's largest system to capture carbon dioxide produced from burning coal at a power plant....

Energy
Oil States View Taxes Warily in Battling Crude Market Dips
Historic declines in oil prices are sending states dependent on the slippery resource scrambling for ways to make up budget shortfalls in 2017 and beyond....

Energy
Probe of Venezuelan Energy Company in U.S. Nets Two More Guilty Pleas
Two U.S. businessmen pleaded guilty to bribery charges for their roles in trying to win contracts from Petroleos de Venezuela SA, as part of a larger, ongoing U.S. investigation into corruption at the state-owned energy company....

Energy
Sessions Discloses Petrobras Bond Holdings as U.S. Probe Unfolds
Sen. Jeff Sessions (R-Ala.), the nominee to head the Justice Department, declared that he owns thousands of dollars' worth of bonds in the Brazilian state-owned oil company that the department's prosecutors are investigating...

Environmental Reviews
State DOTs Tout Benefits of Assuming Federal NEPA Authority
State transportation agencies are finding substantial time and cost savings by conducting their own environmental reviews, taking over that role from the federal government....

Hazardous Waste
Stakeholders Weigh in on EPA's Paperless Waste Tracker
The Environmental Protection Agency's hazardous waste tracking system has a few more hurdles to clear before it goes paperless....

Oil & Gas
Macri Reaches Accord for $5 Billion Argentine Gas Investment
Argentine President Mauricio Macri's brokered an accord to drive investment in the second-biggest shale oil and gas deposit in the world, presaging a new approach to resuscitating the country's faltering economy....

Oil & Gas

Oil Discoveries Seen Recovering After Crashing to 65-Year Low

The amount of oil discovered last year was the lowest since the 1950s as explorers slashed spending amid the worst downturn in a generation, according to Wood Mackenzie. The good news: It can probably only get better from here....

Regulatory Policy

PODCAST: The Scoop on 2017, Directly From the Newsroom

To give you a sense of what will be coming down the pike in 2017, this week's episode of Parts Per Billion, our biweekly environmental policy podcast, ventures out of typical our recording studio and directly into the Bloomberg BNA newsroom....

Renewable Energy

New York Governor Backs Plan to Build Wind Farm Off Long Island

New York Governor Andrew M. Cuomo is throwing his support behind Deepwater Wind LLC's plan to build a 90-megawatt wind farm off the eastern tip of Long Island....

Superfund

EPA Financial Assurance Rule Written 'in the Dark,' Per Industry

The EPA is about to get some scathing feedback from the mining industry over proposed financial responsibility requirements for potential polluters....

Water Infrastructure

EPA Says Water Loan Program Could Offer $1 Billion in Loans

A new Environmental Protection Agency program that provides loans for water infrastructure upgrades is officially up and running, according to the agency....

Water Pollution

Hill Republicans Aim to Curtail Water Rule Despite Litigation

Axing a rule clarifying the Clean Water Act's scope of jurisdiction remains a priority for congressional committee chairmen overseeing federal water pollution programs, according to interviews by Bloomberg BNA....

Water Pollution

North Dakota Hip Deep in Water Jurisdiction Issue

North Dakota landowners, many of whom eke out a living on land dotted with lakes and ponds called prairie potholes, may have no clear idea what problems await them under the new federal definition of jurisdiction of the Clean Water Act....

Water Pollution

River Water Back to Normal Two Weeks After Gold King Spill: EPA

Water quality in the Animas River returned to pre-event levels within two weeks of the August 2015 Gold King Mine spill triggered by Environmental Protection Agency contractors in southwest Colorado, according to a report from the agency....

Daily Environment Report

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To: ORCR IO[ORCR_IO@epa.gov]; Krueger, Anna[Krueger.Anna@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]; Pease, Michael[pease.michael@epa.gov]
Cc: ORCR Press[ORCR_Press@epa.gov]
From: Sullivan, Drew
Sent: Thur 5/4/2017 9:31:37 PM
Subject: RE: *Updated* Media Round-Up on CERCLA 108b

Good afternoon,

Please see additional media coverage on 108b below. This update is on the coverage we've received since Nevada Governor Brian Sandoval sent a letter to and met with Administrator Pruitt.

-Drew

Press

Elko Daily Free Press: Sandoval to meet with EPA chief on mining rule

Article reposted by other publications

MyNews4.com (News 4 & Fox 11): Gov. Sandoval issues letter to EPA administrator on proposed mining rule

E&E News: Sandoval asks Pruitt to ice mine bonding rule

The Associated Press: Sandoval Witnesses Trump Order Parking Federal School Role

Article reposted by other publications

KENVTV.com: Gov. Sandoval meets with EPA Administrator Pruitt to discuss key environmental issues

Ktnv.com: Gov. Sandoval, EPA Administrator, Sec. Perry Meet in Washington, D.C.

Breitbart: EPA's Scott Pruitt Follows Through On Promise to Meet with Governors, Re-establish Trust

Politico (Morning Energy): Today's the day for the Paris showdown

Constructionequipmentguide.com: Nevada Governor Takes Stand Against Proposed EPA Mining Rule

Statements

Gov.nv.gov: SANDOVAL ISSUES LETTER TO ADMINISTRATOR PRUITT ON PROPOSED MINING RULE

Gov.nv.gov: NEVADA GOVERNOR SANDOVAL AND THE ENVIRONMENTAL PROTECTION AGENCY'S ADMINISTRATOR PRUITT DISCUSS KEY ENVIRONEMENTAL AND ECONOMIC ISSUES

MiningConnection.com: Nevada Governor Sandoval to Meet with EPA's Pruitt on Proposed Hard Rock Mining Rule

From: Sullivan, Drew
Sent: Wednesday, April 05, 2017 2:36 PM
To: ORCR IO <ORCR_IO@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Pease, Michael <pease.michael@epa.gov>
Cc: ORCR Press <ORCR_Press@epa.gov>
Subject: RE: *Updated* Media Round-Up on CERCLA 108b Comment Period Extension

Good afternoon,

Immediately below is additional media coverage that we've found on the 108b Comment Period Extension since we last sent an update on March 8.

-Drew

Press

ValueWalk: Will Pruitt Roll Back an Obama-era EPA Rule Charge That Could Cripple the Mining Industry

Morning Consult: Unsatisfied Mining Industry Wants More from the Taxpayer

From: Sullivan, Drew
Sent: Wednesday, March 08, 2017 8:57 AM
To: ORCR IO <ORCR_IO@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Pease, Michael <pease.michael@epa.gov>
Cc: ORCR Press <ORCR_Press@epa.gov>
Subject: *Updated* Media Round-Up on CERCLA 108b Comment Period Extension

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E&E News: EPA slows mine bonding rulemaking

Inside EPA: EPA Extends Time for Input On Mining Finance Rule Following Major Pressure

Law360: EPA Extends Comment Period For Hardrock Mining Rule

The Hill: EPA delays rule on mining cleanup funding

Think Progress: New EPA head takes action—delaying a mining clean-up rule

Statements

Heller.Senate.gov: Heller and Barrasso Praise Extension of Comment Period for EPA's Proposed Mining Rule

- Similar to the statement released by the U.S. Senate Committee on Environment and Public Works

The Surety & Fidelity Association of America: U.S. EPA Delays Controversial Hardrock Mining Rule

From: Sullivan, Drew
Sent: Monday, February 27, 2017 11:43 AM
To: ORCR IO <ORCR_IO@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Pease, Michael <pease.michael@epa.gov>
Cc: ORCR Press <ORCR_Press@epa.gov>
Subject: Media Round-Up on CERCLA 108b Comment Period Extension

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Associated Press: EPA delays rule for miners to give cleanup assurances

Associated Press: New EPA chief delays mining rule after industry objects

IBusinesslines: EPA Extends Comment Period on Hard Rock Mining Proposed Rule

Statements

U.S. Senate Committee on Environment and Public Works: Barrasso and Heller Praise Extension of Comment Period for EPA's Proposed Mining Rule

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Social Media

Ken Greenwood @Ken_Greenwood · 2h

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Facing pushback from industry and Republicans in Congress, the U.S. Environmental Protection Agency delayed on Friday a proposal that would...

washingtonpost.com

To: ORCR IO[ORCR_IO@epa.gov]; Krueger, Anna[Krueger.Anna@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]; Pease, Michael[pease.michael@epa.gov]
Cc: ORCR Press[ORCR_Press@epa.gov]
From: Sullivan, Drew
Sent: Wed 4/5/2017 6:35:51 PM
Subject: RE: *Updated* Media Round-Up on CERCLA 108b Comment Period Extension

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Sent: Monday, February 27, 2017 11:43 AM
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Cc: ORCR Press <ORCR_Press@epa.gov>
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washingtonpost.com

To: ORCR IO[ORCR_IO@epa.gov]; Krueger, Anna[Krueger.Anna@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]; Pease, Michael[pease.michael@epa.gov]
Cc: ORCR Press[ORCR_Press@epa.gov]
From: Sullivan, Drew
Sent: Wed 3/8/2017 1:57:12 PM
Subject: *Updated* Media Round-Up on CERCLA 108b Comment Period Extension

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washingtonpost.com

To: Barr, Linda[Barr.Linda@epa.gov]
From: Krueger, Anna
Sent: Wed 12/14/2016 8:44:43 PM
Subject: RE: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

I suppose so, and Barnes. I'll forward it along to them

From: Barr, Linda
Sent: Wednesday, December 14, 2016 15:43
To: Krueger, Anna <Krueger.Anna@epa.gov>
Subject: RE: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

I wonder if we should share with Randy Dietz, Gerain Cogliano, and Rob Stachowiak also?

Linda Barr

Economist

Cleanup Programs Branch

Program Implementation and Information Division

Office of Resource Conservation and Recovery

US Environmental Protection Agency

703-605-0768

Barr.Linda@epa.gov

Location:

2777 S. Crystal Drive

Arlington, VA 22202

For Delivery:

1200 Pennsylvania Ave., NW

Mail Code 5306P

Washington, DC 20460

From: Krueger, Anna
Sent: Wednesday, December 14, 2016 3:20 PM
To: Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>
Subject: FW: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

Fyi, highlighted in yellow below

From: Barbery, Andrea
Sent: Wednesday, December 14, 2016 15:08
To: Harwood, Jackie <Harwood.Jackie@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>
Subject: FW: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

Calling to your attention the last 3 of the 7 new resolutions coming out of the WGA meeting – on spent nuclear waste, financial assurance, and CCR.

Thanks,

Andrea Barbery

202-564-1397

From: Rupp, Mark
Sent: Wednesday, December 14, 2016 2:46 PM
To: Bowles, Jack <Bowles.Jack@epa.gov>; Cook-Shyovitz, Becky <Cook-Shyovitz.Becky@epa.gov>; Barbery, Andrea <Barbery.Andrea@epa.gov>; Hanson, Andrew <Hanson.Andrew@epa.gov>; Hannon, Arnita <Hannon.Arnita@epa.gov>; Eargle, Frances <Eargle.Frances@epa.gov>
Subject: Fwd: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

Several of note in here....

Begin forwarded message:

> **From:** James Ogsbury <jogsbury@westgov.org>
> **Date:** December 14, 2016 at 1:10:29 PM CST
> **To:** James Ogsbury <jogsbury@westgov.org>
> **Subject: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]**
>
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Read, download all seven resolutions

To: Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]
From: Krueger, Anna
Sent: Wed 12/14/2016 8:20:00 PM
Subject: FW: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

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Read, download all seven resolutions

To: Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]; Pease, Michael[pease.michael@epa.gov]
From: Krueger, Anna
Sent: Thur 1/12/2017 3:57:11 PM
Subject: FW: Inquiry from Utah - CERCLA 108b hardrock mining rule

Ex. 5 - Deliberative Process

From: Balent, Jean
Sent: Thursday, January 12, 2017 10:53
To: Krueger, Anna <Krueger.Anna@epa.gov>; Harman, Greta <Harman.Greta@epa.gov>
Subject: FW: Inquiry from Utah - CERCLA 108b hardrock mining rule

Please see question below

Thank you,

Jean M Balent

Environmental Scientist

USEPA

Office of Superfund Remediation and Technology Innovation

Phone 703-603-9924

Email balent.jean@epa.gov

Fax 703-603-9116

Mobile Ex. 6 - Personal Phone

www.cluin.org

From: Douglas Bacon [mailto:dbacon@utah.gov]
Sent: Tuesday, January 10, 2017 4:57 PM
To: Balent, Jean <Balent.Jean@epa.gov>
Cc: Hans Millican <hmillican@utah.gov>
Subject: Inquiry from Utah - CERCLA 108b hardrock mining rule

Good afternoon Ms. Balent,

On behalf of the State of Utah Department of Environmental Quality, I have been following and reviewing (as applicable) EPA's development efforts as it relates to the hardrock mining financial responsibilities rule under CERCLA 108b. I have also recently been coordinating review efforts with our Department of Natural Resources - Division of Oil, Gas and Mining.

During a recent webinar it was mentioned that EPA evaluated the range of mining sites in the country as part of the rule assessment. This evaluation then went to the degree of narrowing the range down to the sites which posed a higher risk, and thus would be subject to the rule. If I recall correctly some 221 sites were subsequently narrowed down to a smaller discrete subset. Does and can EPA maintain and thus subsequently provide the list of mine sites in the US that it feels will be subject to the provisions of the pending rule.?

If a list of the discrete sites cannot be released (though I wonder why not), could EPA provide a sense of the types of sites (from a perspective of size, scope of mine waste management, types of mine waste, etc.) that are in the list? Certainly we are keen here in Utah to get a sense of the sites in our state, but would be interested (from a comparative stand point) to see the entire list.

I look forward to your reply, thank you for your time.

Douglas Bacon | Project Manager - Kennecott | ITRC - SEC & Utah Point of Contact

801-536-4282 (office) | **www.deq.utah.gov** | www.itrcweb.org

Office Hours: Tuesday-Friday, 7:30 a.m.–6:00 p.m.

Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.

To: Krueger, Anna[Krueger.Anna@epa.gov]; Barr, Linda[Barr.Linda@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Pease, Michael[pease.michael@epa.gov]
From: Stachowiak, Robert
Sent: Wed 1/11/2017 8:59:43 PM
Subject: RE: slides for the tribal webinars on Thursday

Ex. 5 - Attorney Client

-R

From: Krueger, Anna
Sent: Wednesday, January 11, 2017 3:06 PM
To: Barr, Linda <Barr.Linda@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Pease, Michael <pease.michael@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Subject: FW: slides for the tribal webinars on Thursday

Ex. 5 - Deliberative Process

From: Krueger, Anna
Sent: Tuesday, January 10, 2017 16:59
To: Barr, Linda <Barr.Linda@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Pease, Michael <pease.michael@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Subject: slides for the tribal webinars on Thursday

Ex. 5 - Deliberative Process

Anna

To: Brooks, Becky[Brooks.Becky@epa.gov]
Cc: Hilosky, Nick[Hilosky.Nick@epa.gov]; Huggins, Richard[Huggins.Richard@epa.gov]
From: Radtke, Meghan
Sent: Wed 9/13/2017 5:04:41 PM
Subject: RE: Introductions and Request for Meeting

Hi Becky,

We noticed that NMA mentions a couple of other topics, including CCR. When you get the meeting scheduled, can you see if they plan to go into those other topics? If so, we may want a couple of other folks to attend, especially since Barnes will not be present.

Thanks!

Meghan

Meghan Radtke, Ph.D., Biologist

Special Assistant

Office of Resource Conservation and Recovery

Office of Land and Emergency Management

U.S. Environmental Protection Agency

Desk phone: 703-347-0229

Mobile: Ex. 6 - Personal Privacy cell phone

From: Brooks, Becky
Sent: Wednesday, September 13, 2017 12:41 PM
To: ORCR IO <ORCR_IO@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Cc: Hilosky, Nick <Hilosky.Nick@epa.gov>
Subject: FW: Introductions and Request for Meeting

The National Mining Association wants to come in next week to meet with Patrick. Based on the proposed dates below, Patrick can meet on Sept. 19 at 4:00 or Sept. 20 at 3:00. Please let me know what works for ORCR, as we want to include your office. Thanks. Becky

Becky Brooks

Special Assistant

Office of Land and Emergency Management

U.S. Environmental Protection Agency

ph. 202-566-2762

From: Bridgeford, Tawny [mailto:TBridgeford@nma.org]
Sent: Wednesday, September 13, 2017 11:41 AM
To: Brooks, Becky <Brooks.Becky@epa.gov>
Subject: RE: Introductions and Request for Meeting

Becky:

Would next Tuesday, Sept. 19 at 4 p.m. or Wednesday, Sept. 20 (any time but noon to 2 p.m.) work? If not, send me two options and we will see what we can move around on our end.

Thanks!

Tawny

From: Brooks, Becky [mailto:Brooks.Becky@epa.gov]
Sent: Wednesday, September 13, 2017 8:38 AM
To: Bridgeford, Tawny <TBridgeford@nma.org>

Subject: FW: Introductions and Request for Meeting

Hi Tawny – Please let me know what timeframe you are thinking about. Thanks. Becky

Becky Brooks

Special Assistant

Office of Land and Emergency Management

U.S. Environmental Protection Agency

ph. 202-566-2762

From: Davis, Patrick
Sent: Tuesday, September 12, 2017 2:28 PM
To: Bridgeford, Tawny <TBridgeford@nma.org>
Cc: Brooks, Becky <Brooks.Becky@epa.gov>
Subject: RE: Introductions and Request for Meeting

Hi Tawny,

Indeed, I remember being disappointed to have missed you when you came by last month. Thank you for restarting the conversation. Please coordinate with Becky Brooks to find a convenient time.

Thanks,

Patrick Davis

Environmental Protection Agency

Deputy Assistant Administrator, Office of Land and Emergency Management

202-564-3103 office

Ex. 6 - Personal Privacy cell phone cell

Information sent to this email address may be subject to FOIA.

From: Bridgeford, Tawny [mailto:TBridgeford@nma.org]
Sent: Tuesday, September 12, 2017 2:20 PM
To: Davis, Patrick <davis.patrick@epa.gov>
Subject: Introductions and Request for Meeting

Mr. Davis:

Good afternoon! I am the Deputy General Counsel and Vice President of Regulatory Affairs at the National Mining Association (NMA). Last month we met with Barnes Johnson and members of the team to discuss NMA's concerns with and positions regarding the proposed CERCLA financial responsibility rule for the hardrock mining industry. Unfortunately, our scheduled member fly-in did not coordinate well with your schedule at the time and we asked to move forward with the meeting with the OLEM staff. We would like to correct that scheduling issue and hopefully find a time to introduce ourselves in person and provide a quick overview of who we are and our members' priority issues under OLEM. CERCLA financial responsibility is our number one priority, but we are involved in several other issues as well (e.g., coal ash, chemical security, etc.). Please let me know if you have time over the next few weeks to meet in person.

Look forward to hearing from you.

Regards,

Tawny

Tawny Bridgeford
Deputy General Counsel & Vice President, Regulatory Affairs
National Mining Association
101 Constitution Ave. NW, Suite 500 East
Washington, D.C. 20001
Phone: (202) 463-2600
Direct: (202) 463-2629
tbridgeford@nma.org

To: Radtke, Meghan[Radtke.Meghan@epa.gov]
Cc: Hilosky, Nick[Hilosky.Nick@epa.gov]; Huggins, Richard[Huggins.Richard@epa.gov]
From: Brooks, Becky
Sent: Wed 9/13/2017 5:08:17 PM
Subject: RE: Introductions and Request for Meeting

Yes, I will clarify that with them. Thanks.

Becky Brooks

Special Assistant

Office of Land and Emergency Management

U.S. Environmental Protection Agency

ph. 202-566-2762

From: Radtke, Meghan
Sent: Wednesday, September 13, 2017 1:05 PM
To: Brooks, Becky <Brooks.Becky@epa.gov>
Cc: Hilosky, Nick <Hilosky.Nick@epa.gov>; Huggins, Richard <Huggins.Richard@epa.gov>
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From: Deitz, Randy
Sent: Wed 12/14/2016 9:50:23 PM
Subject: RE: Western Governors approve policy resolutions on stronger state-federal relationship, radioactive waste, coal combustion residuals, water quality and more [WARNING: DKIM validation failed]

Pardon me Anna. I need to thank you for the heads up!

Randy Deitz

Attorney Advisor

Communications, Partnerships, and Analysis Office (OCPA)

Office of Land and Emergency Management (OLEM)

(202) 566-0197

From: Krueger, Anna
Sent: Wednesday, December 14, 2016 3:49 PM
To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Deitz, Randy <Deitz.Randy@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
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An FYI on WGA

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Date: December 14, 2016 at 1:10:29 PM CST

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To: Hoffman, Wendy[Hoffman.Wendy@epa.gov]; Noggle, William[Noggle.William@epa.gov]; Nickerson, William[Nickerson.William@epa.gov]; Wiggins, Lanelle[Wiggins.Lanelle@epa.gov]
From: Cogliano, Gerain
Sent: Fri 12/2/2016 4:12:32 AM
Subject: Fwd: signed panel report files (1 of 2 emails)

Docs are in cms!!!!

Begin forwarded message:

From: "McLendon, Wanda" <McLendon.Wanda@epa.gov>
Date: December 1, 2016 at 11:07:59 PM EST
To: "Cogliano, Gerain" <Cogliano.Gerain@epa.gov>
Cc: "Smith, Susan" <Smith.Susan@epa.gov>
Subject: RE: signed panel report files (1 of 2 emails)

Gerain,

The documents were imported into OLEM-17-000-1941.

Wanda Y. McLendon

Management Analyst

U.S. Environmental Protection Agency

Office of Land and Emergency Management

Organizational Management and Integrity Staff

William J. Clinton EPA West, Room 4139-C

(202) 566-1917

Follow OLEM on Twitter @EPAland

From: Cogliano, Gerain
Sent: Thursday, December 01, 2016 10:57 PM
To: McLendon, Wanda <McLendon.Wanda@epa.gov>
Cc: Smith, Susan <Smith.Susan@epa.gov>
Subject: Fwd: signed panel report files (1 of 2 emails)

Ready for cme. SBAR Panel Report for Hardrock Mining Rule. Another email to follow.

Begin forwarded message:

> **From:** "Wiggins, Lanelle" <Wiggins.Lanelle@epa.gov>
> **To:** "Cogliano, Gerain" <Cogliano.Gerain@epa.gov>
> **Subject: signed panel report files (1 of 2 emails)**
>
> I'm sending this in two emails just in case the file sizes make it undeliverable.

Lanelle Bembenek Wiggins

RFA/SBREFA Team Leader

US EPA - Office of Policy (1803A) - 1200 Penn Ave NW - Washington DC - 20460

202.566.2372

To: Hoffman, Wendy[Hoffman.Wendy@epa.gov]
From: Cogliano, Gerain
Sent: Thur 12/1/2016 1:14:33 PM
Subject: RE: Action Memo for the 108(b) Hardrock Mining Rule

I gave it some thought to start that but thought it best if I didn't touch it. ☺

From: Hoffman, Wendy
Sent: Thursday, December 01, 2016 8:08 AM
To: Cogliano, Gerain <Cogliano.Gerain@epa.gov>
Cc: Noggle, William <Noggle.William@epa.gov>
Subject: Re: Action Memo for the 108(b) Hardrock Mining Rule

That would be great. Am stuck in a train at Metro Center. I need to take care of Danielle's other issues with preamble and ORCR.

Sent from my iPhone

On Dec 1, 2016, at 8:04 AM, Cogliano, Gerain <Cogliano.Gerain@epa.gov> wrote:

> Oh yeah….formatting!
>
> **From:** Cogliano, Gerain
> **Sent:** Thursday, December 01, 2016 8:03 AM
> **To:** Noggle, William <Noggle.William@epa.gov>
> **Cc:** Hoffman, Wendy <Hoffman.Wendy@epa.gov>
> **Subject:** FW: Action Memo for the 108(b) Hardrock Mining Rule
>
> Wendy, Bill is gonna look at this, too, and ensure it is correctly formatted, reads well, etc.
>
> **From:** Foster, Barbara
> **Sent:** Thursday, December 01, 2016 2:06 AM
> **To:** Hoffman, Wendy <Hoffman.Wendy@epa.gov>
> **Cc:** ORCR IO <ORCR_IO@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Barr, Linda <Barr.Linda@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>
> **Subject:** Action Memo for the 108(b) Hardrock Mining Rule

Wendy,

The Action Memo is attached. The SBAR Panel information is in italics because it may change tomorrow, but meanwhile you can take a look at it.

Thanks

Barbara Foster

OSWER/ORCR/PIID

703-308-7057

<Final HRM Action Memo draft 6.docx>

Cc: Huggins, Richard[Huggins.Richard@epa.gov]; Radtke, Meghan[Radtke.Meghan@epa.gov]; Hostage, Barbara[Hostage.Barbara@epa.gov]; Noggle, William[Noggle.William@epa.gov]; Mattick, Richard[Mattick.Richard@epa.gov]
To: Johnson, Barnes[Johnson.Barnes@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]
From: Cogliano, Gerain
Sent: Wed 11/1/2017 2:11:34 PM
Subject: HRM ETA

Good morning,

Ex. 5 - Deliberative Process

Thanks!

Gerain

Ex. 5 - Deliberative Process

From: Farber, Glenn
Location: 3146 W
Importance: Normal
Subject: Hardrock Mining Rule
Start Date/Time: Thur 7/20/2017 7:00:00 PM
End Date/Time: Thur 7/20/2017 7:30:00 PM

From: Farber, Glenn
Importance: Normal
Subject: Status of CERCLA hardrock mining rule
Start Date/Time: Mon 6/26/2017 6:00:00 PM
End Date/Time: Mon 6/26/2017 7:00:00 PM

To: Farber, Glenn[Farber.Glenn@epa.gov]
Cc: Yonce, Stacey[yonce.stacey@epa.gov]
From: Cuje, Jace
Sent: Thur 5/4/2017 10:41:46 PM
Subject: RE: financial assurance instruments as compliance mechanisms RE: HOLD for CWA hazardous Substance Spill Prevention Workgroup

Ahhh….. should have realized that you're already plugged in … very good point. ~~~ Jace

From: Farber, Glenn
Sent: Thursday, May 04, 2017 6:36 PM
To: Cuje, Jace <Cuje.Jace@epa.gov>
Cc: Yonce, Stacey <yonce.stacey@epa.gov>
Subject: RE: financial assurance instruments as compliance mechanisms RE: HOLD for CWA hazardous Substance Spill Prevention Workgroup

Thanks, Jace.

Ex. 5 - Deliberative Process

From: Cuje, Jace
Sent: Thursday, May 04, 2017 5:56 PM

To: Farber, Glenn <Farber.Glenn@epa.gov>
Cc: Yonce, Stacey <yonce.stacey@epa.gov>
Subject: financial assurance instruments as compliance mechanisms RE: HOLD for CWA hazardous Substance Spill Prevention Workgroup

Glenn – Good afternoon. Stumbled across the following *InsideEPA* **Featured Story**:

EPA Warned Against Corporate Guarantees As Agency Eyes Mining Rule Options

"Oklahoma regulators and environmentalists are urging EPA to eschew the use of corporate guarantees as a means of complying with its first-time rule requiring financial assurances from hardrock mining companies to show they can pay for potential hazardous substance releases, calls that could limit the agency's options as it crafts the rule.…Similarly, Oklahoma DEQ in April 7 comments submitted on the draft rule details the department's experience with the failure of many different kinds of financial assurance instruments such as **insurance**, corporate guarantees and financial tests, and therefore tells EPA its "preference" is for the agency not to include corporate guarantees or financial tests as compliance mechanisms in the final rule." (emphasis added)

Seemingly, the April 7 comments (with link inserted above) offer perspectives of relevance to the Liability Insurance Requirement (i.e., "Other Options Considered") thus, forwarding, FYI.

Please reply/call with follow-up questions otherwise, thanks in advance for considering and best wishes for an enjoyable weekend. ~~~ Jace (AWL# 703-330-6775)

-----Original Appointment-----

From: Yonce, Stacey
Sent: Tuesday, May 02, 2017 3:43 PM
To: Noggle, William; Gioffre, Patricia; Cogliano, Gerain; Howland, Sanda; Bove, James; Elliott, Ross; Farber, Glenn; Cuje, Jace; Barth, Edwin; Simmons, Jane; Pickrel, Jan; Christopher, Rebecca; Porter, Brooke; Ulfig, Joseph; Gulch, Jon; Hans, Mick; Mason, Steve; Atencio, Kathie; Caterino, Cosmo; Jennings, Kim; Principe, Vanessa; Kaps, Melissa; Wilson, Gregory; Beaman, Joe; Egan, Robert; Kamke, Sherry; Julian, Jaime; Tarrab, Alan
Subject: HOLD for CWA hazardous Substance Spill Prevention Workgroup
When: Wednesday, May 03, 2017 11:00 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: WJCN 6528 or call-in to Ex. 6 - Personal Privacy conference line code Ex. 6 - Personal Privacy conference code webex link below

This is a hold for a workgroup meeting to discuss the following topics, as time allows:

1. Estimate universe of potentially regulated facilities
2. Quantifying impacts of CWA hazardous substance discharges
3. Identifying existing regulatory requirements

Discussion will include proposed approaches and possible sources of data.

http://epawebconferencing.acms.com/splashs/

Stacey

Stacey Yonce

Regulations Implementation Division

U.S. EPA Office of Emergency Management

1200 Pennsylvania Avenue NW

Washington, DC 20460

(202) 564-2288

From: Rees, Sarah
Importance: Normal
Subject: Accepted: Status of CERCLA hardrock mining rule
Start Date/Time: Mon 6/26/2017 6:00:00 PM
End Date/Time: Mon 6/26/2017 7:00:00 PM

From: Nickerson, William
Importance: Normal
Subject: Accepted: Status of CERCLA hardrock mining rule
Start Date/Time: Mon 6/26/2017 6:00:00 PM
End Date/Time: Mon 6/26/2017 7:00:00 PM

From: Farber, Glenn
Importance: Normal
Subject: Status of CERCLA hardrock mining rule
Start Date/Time: Mon 6/26/2017 6:00:00 PM
End Date/Time: Mon 6/26/2017 7:00:00 PM

To: Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Vyas, Peggy[Vyas.Peggy@epa.gov]
Cc: Mooney, Charlotte[Mooney.Charlotte@epa.gov]
From: Palmer, Scott
Sent: Fri 11/25/2016 6:57:20 PM
Subject: RE: Action Memo

I'll check on this for us, and let everyone know what I discover. Jeremy's group should have our earlier estimate.

From: Sasseville, Sonya
Sent: Friday, November 25, 2016 1:07 PM
To: Palmer, Scott <Palmer.Scott@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>
Cc: Mooney, Charlotte <Mooney.Charlotte@epa.gov>
Subject: RE: Action Memo

Ex. 5 - Deliberative Process

Sent from my Windows Phone

From: Palmer, Scott
Sent: 11/25/2016 1:02 PM
To: Sasseville, Sonya; Foster, Barbara; Vyas, Peggy
Subject: RE: Action Memo

Ex. 5 - Deliberative Process

I'll have the form done shortly, and then move on to Additional Classes.

From: Sasseville, Sonya

Sent: Friday, November 25, 2016 12:33 PM
To: Foster, Barbara <Foster.Barbara@epa.gov>; Vyas, Peggy <Vyas.Peggy@epa.gov>
Cc: Palmer, Scott <Palmer.Scott@epa.gov>
Subject: RE: Action Memo

Thanks, Scott!

From: Foster, Barbara
Sent: Friday, November 25, 2016 12:18 PM
To: Vyas, Peggy <Vyas.Peggy@epa.gov>
Cc: Palmer, Scott <Palmer.Scott@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Subject: RE: Action Memo

Scott is going to do the Federal Register typesetting request for both packages.

From: Chang, Patrick
Sent: Friday, November 25, 2016 12:04 PM
To: Foster, Barbara <Foster.Barbara@epa.gov>
Cc: Vyas, Peggy <Vyas.Peggy@epa.gov>
Subject: Re: Action Memo

Peggy's on top of it!

Sent from my iPhone

On Nov 23, 2016, at 5:48 PM, Foster, Barbara <Foster.Barbara@epa.gov> wrote:

> Fantastic – thanks.
>
> **From:** Vyas, Peggy
> **Sent:** Wednesday, November 23, 2016 4:59 PM
> **To:** Foster, Barbara <Foster.Barbara@epa.gov>; Chang, Patrick <Chang.Patrick@epa.gov>
> **Subject:** Re: Action Memo

Yes, it went out with the FAR package back in September.

From: Foster, Barbara
Sent: Wednesday, November 23, 2016 4:24:15 PM
To: Vyas, Peggy; Chang, Patrick
Subject: Action Memo

Peggy – have you done an Action Memo for the notice?

Patrick – in case you are checking emails and Peggy isn't – have you seen an action memo for the notice?

Barbara Foster

OSWER/ORCR/PIID

703-308-7057

To: Noggle, William[Noggle.William@epa.gov]; Vyas, Peggy[Vyas.Peggy@epa.gov]
Cc: Radtke, Meghan[Radtke.Meghan@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Mooney, Charlotte[Mooney.Charlotte@epa.gov]
From: Palmer, Scott
Sent: Fri 3/24/2017 6:12:03 PM
Subject: RE: reg agenda - hardrock

Ex. 5 - Deliberative Process

Thx, Scott

From: Noggle, William
Sent: Friday, March 24, 2017 1:30 PM
To: Vyas, Peggy <Vyas.Peggy@epa.gov>; Palmer, Scott <Palmer.Scott@epa.gov>
Cc: Radtke, Meghan <Radtke.Meghan@epa.gov>
Subject: reg agenda - hardrock

Peggy, Scott,

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Question 3: Is this Action likely to have a significant adverse economic impact on a substantial number small of small entities (SISNOSE) as defined in the Regulatory Flexibility Act?

[Instructions: Place an "X" to the left of at least one.]

- [ ] No Small Entities Affected
- [ ] Undetermined
- [ ] Small Business
- [ ] Small Government Jurisdictions
- [ ] Small Non-Profit Organizations

Current answer:

Ex. 5 - Deliberative Process

Thanks,

Bill

To: Foster, Barbara[Foster.Barbara@epa.gov]; Sasseville, Sonya[Sasseville.Sonya@epa.gov]; Hillenbrand, John[Hillenbrand.John@epa.gov]; Marcy, Ken[Marcy.Ken@epa.gov]; Hanley, Jim[Hanley.James@epa.gov]; Purcell, Mark[purcell.mark@epa.gov]; Benware, Richard[Benware.Richard@epa.gov]
From: Mahmud, Shahid
Sent: Wed 1/11/2017 4:35:37 PM
Subject: EPA Financial Assurance Rule Written 'in the Dark,' Per Industry - Article

FYI.

http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=103182606&vname=dennotallissues&jd=a0k7b7

To: Shimeles, Taetaye[Shimeles.Taetaye@epa.gov]
Cc: Foster, Barbara[Foster.Barbara@epa.gov]; Krahe, Joseph[Krahe.Joseph@epa.gov]; Benware, Richard[Benware.Richard@epa.gov]
From: Stachowiak, Robert
Sent: Tue 2/21/2017 4:53:20 PM
Subject: RE: Question re Table X-1

Thanks again. I see that the #s below work out now.

-R

From: Shimeles, Taetaye
Sent: Tuesday, February 21, 2017 11:44 AM
To: Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>; Benware, Richard <Benware.Richard@epa.gov>
Subject: RE: Question re Table X-1

Rob,

It is still a matter of rounding. I've added below the decimal for the remaining facility types.

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Taetaye Shimeles

Environmental Engineer

Economics and Risk Analysis Staff
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Phone: 703-308-8729

E-mail: shimeles.taetaye@epa.gov

From: Stachowiak, Robert
Sent: Tuesday, February 21, 2017 11:24 AM
To: Shimeles, Taetaye <Shimeles.Taetaye@epa.gov>; Benware, Richard <Benware.Richard@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>
Subject: RE: Question re Table X-1

OK but it still doesn't seem to work out in places, e.g.:

Ex. 5 - Attorney Client

From: Shimeles, Taetaye
Sent: Friday, February 17, 2017 9:28 AM
To: Benware, Richard <Benware.Richard@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>
Subject: RE: Question re Table X-1

Rob,

I confirm Richard's response. Please see the table below with additional significant digits. The highlighted columns are the ones presented in the proposed HRM.

Ex. 5 - Deliberative Process

Taetaye Shimeles

Environmental Engineer

Economics and Risk Analysis Staff
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Phone: 703-308-8729

E-mail: shimeles.taetaye@epa.gov

From: Benware, Richard
Sent: Friday, February 17, 2017 9:17 AM
To: Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Shimeles, Taetaye <Shimeles.Taetaye@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>
Subject: RE: Question re Table X-1

Rob,

These numbers are in a rounded form because I've seen the full table in the RIA and it has more significant digits. I'm pretty sure any discrepancy is due to rounding, but I'll refer the question to Taetaye and Joe who developed it.

Best,

-Richard

From: Stachowiak, Robert
Sent: Wednesday, February 15, 2017 5:17 PM
To: Benware, Richard <Benware.Richard@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>
Subject: Question re Table X-1

Attorney-client communication

Deliberative process privileged

Hi Richard –

Clarifying question for you re Table X-1 of the proposed HRM rule:

Ex. 5 - Attorney Client

Thanks!

-R

Robert Stachowiak
U.S. Environmental Protection Agency
Office of General Counsel (2366A)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460
(202) 564-0580

To: Shimeles, Taetaye[Shimeles.Taetaye@epa.gov]; Benware, Richard[Benware.Richard@epa.gov]
Cc: Foster, Barbara[Foster.Barbara@epa.gov]; Krahe, Joseph[Krahe.Joseph@epa.gov]
From: Stachowiak, Robert
Sent: Tue 2/21/2017 4:23:36 PM
Subject: RE: Question re Table X-1

OK but it still doesn't seem to work out in places, e.g.:

Ex. 5 - Attorney Client

From: Shimeles, Taetaye
Sent: Friday, February 17, 2017 9:28 AM
To: Benware, Richard <Benware.Richard@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>
Subject: RE: Question re Table X-1

Rob,

I confirm Richard's response. Please see the table below with additional significant digits. The highlighted columns are the ones presented in the proposed HRM.

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Taetaye Shimeles

Environmental Engineer

Economics and Risk Analysis Staff
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Phone: 703-308-8729

E-mail: shimeles.taetaye@epa.gov

From: Benware, Richard
Sent: Friday, February 17, 2017 9:17 AM
To: Stachowiak, Robert <Stachowiak.Robert@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>; Shimeles, Taetaye <Shimeles.Taetaye@epa.gov>; Krahe, Joseph <Krahe.Joseph@epa.gov>
Subject: RE: Question re Table X-1

Rob,

These numbers are in a rounded form because I've seen the full table in the RIA and it has more significant digits. I'm pretty sure any discrepancy is due to rounding, but I'll refer the question to Taetaye and Joe who developed it.

Best,

-Richard

From: Stachowiak, Robert
Sent: Wednesday, February 15, 2017 5:17 PM
To: Benware, Richard <Benware.Richard@epa.gov>
Cc: Foster, Barbara <Foster.Barbara@epa.gov>
Subject: Question re Table X-1

Attorney-client communication

Deliberative process privileged

Hi Richard –

Clarifying question for you re Table X-1 of the proposed HRM rule:

Ex. 5 - Attorney Client

Thanks!

-R

Robert Stachowiak
U.S. Environmental Protection Agency
Office of General Counsel (2366A)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460
(202) 564-0580

To: Benware, Richard[Benware.Richard@epa.gov]
Cc: Foster, Barbara[Foster.Barbara@epa.gov]
From: Stachowiak, Robert
Sent: Wed 2/15/2017 10:17:28 PM
Subject: Question re Table X-1

Attorney-client communication

Deliberative process privileged

Hi Richard –

Clarifying question for you re Table X-1 of the proposed HRM rule:

Ex. 5 - Attorney Client/Deliberative Process

Thanks!

-R

Robert Stachowiak
U.S. Environmental Protection Agency
Office of General Counsel (2366A)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460
(202) 564-0580

To: Vyas, Peggy[Vyas.Peggy@epa.gov]; Foster, Barbara[Foster.Barbara@epa.gov]; Krueger, Anna[Krueger.Anna@epa.gov]
From: Pease, Michael
Sent: Tue 12/6/2016 2:52:19 PM
Subject: RE: 40 CFR Part 320 notice

Oh boy! Also, why is he interested in AC notice rather than the HRM rule?

-----Original Message-----
From: Vyas, Peggy
Sent: Tuesday, December 06, 2016 9:42 AM
To: Pease, Michael <pease.michael@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Krueger, Anna <Krueger.Anna@epa.gov>
Subject: FW: 40 CFR Part 320 notice

Check out this guy's "Member of:" below his phone number!

-----Original Message-----
From: Walt Eason [mailto:weason@goldprospectors.org]
Sent: Tuesday, December 06, 2016 9:37 AM
To: Vyas, Peggy <Vyas.Peggy@epa.gov>
Subject: 40 CFR Part 320 notice

Please keep me advised of the "Financial Responsibility Requirements for Facilities in the Chemical, Petroleum and Electric Power Industries" which the environmental protection agency intends to adjust or change through the action notice and or federal register including the public comment periods.

If you have any other questions or concerns please do not hesitate to get in contact with me.
Thank You
Walter H. Eason
Claim Administrator
Mining Claims Researcher & Cartographer for GPAA
1 (800) 551-9707 X177 or weason@goldprospectors.org Member of:
GPAA Gold Life
Jews for Preservation of Firearms Ownership Pacific Legal Foundation The greatest enemy of Socialism is reality. The reality that human nature will invariably pull certain people toward individualism and success and others toward laziness and collectivism. The tension between the makers and the takers always, always leads to Socialism's inevitable collapse.
"The world will not be destroyed by those who do evil, but by those who watch and do nothing" - Albert Einstein "To be prepared for war is one of the most effectual means of preserving peace."
George Washington
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To: Huggins, Richard[Huggins.Richard@epa.gov]; Radtke, Meghan[Radtke.Meghan@epa.gov]
Cc: Sasseville, Sonya[Sasseville.Sonya@epa.gov]
From: Foster, Barbara
Sent: Tue 8/1/2017 2:28:38 PM
Subject: Request for meetings with Barnes

Hi –

We need to schedule briefings with Barnes then Barry for the hardrock mining rule. It appears there is time Monday August 21 at 11:00 with Barnes, and Wednesday August 23 with Barry, and we wanted to ask if we could get those times.

Also, we wondered if Barnes is going to the Horinko event on August 17, and whether our weekly will be canceled that day. If so, can it be rescheduled?

Thanks

Barbara Foster

OSWER/ORCR/PIID

703-308-7057

To: Hoffman, Wendy[Hoffman.Wendy@epa.gov]
From: InsideEPA.com
Sent: Tue 2/28/2017 12:15:03 PM
Subject: The Morning Headlines from InsideEPA.com -- February 28, 2017

The critical environmental policy-making news you need as you begin your day

February 28, 2017

Latest News

RFF Eyes Process For Continued Carbon 'Cost' Research In Trump Era

The economic think tank Resources for the Future (RFF) is scoping out options to press forward on research and analysis related to the climate damages metric known as the social cost of carbon (SCC), an effort that could fill gaps left by expected Trump administration disengagement on the issue.

Utility Urges 6th Circuit To Reverse 'Exceptional' Ruling On Enforcing NSR

A Michigan utility is urging the U.S. Court of Appeals for the 6th Circuit to reconsider a ruling upholding EPA's view that it can pursue Clean Air Act new source review (NSR) cases based on a facility's projected emissions, which the utility says was wrongly decided and is of “exceptional” importance to the future scope of enforcing NSR.

EPA Will Focus On Short-Term SO2 Exposures In NAAQS Risk Assessment

EPA is placing heavy emphasis on the short-term public health impacts of exposure to sulfur dioxide (SO2) air emissions in a planned risk and exposure assessment (REA) that will inform its pending decision on whether to retain, weaken, or tighten the agency's existing national ambient air quality standards (NAAQS) for the criteria pollutant.

To Woo Trump, Backers Pitch 'Business Case' For Global Aircraft GHG Deals

Environmentalists and industry groups are urging EPA and the Department of Transportation (DOT) to craft rules to implement two international agreements reached last year curbing aircraft greenhouse gases (GHGs), pitching a “business case” for the deals and arguing that they are less controversial than carbon controls directed at other industries, such as the power sector.

EPA Research Leaders Promote Relevancy, Value To Trump Administration

EPA's research leaders are seeking to demonstrate the value of the Office of Research and Development (ORD), emphasizing during a recent introductory

meeting with Trump administration officials the provisions in environmental statutes that mandate various research programs, ORD's emergency and technical assistance, and other activities.

EPA Extends Time For Input On Mining Finance Rule Following Major Pressure

EPA has granted requests from lawmakers as well as the mining and other industries to extend the time for groups to weigh in on its controversial, first-time Superfund financial assurance rule for the hardrock mining sector, even as the agency faces a Dec. 1 court-ordered deadline to take final action on a rule.

Daily Feed

Michigan seeks to address vapor intrusion as EPA rule delayed

Michigan is seeking more than $5 million to address vapor intrusion even as the Trump administration has delayed an EPA rule that would address the issue.

EPA extends comment deadline on Texas haze plan

EPA's extension of the public comment period for a tough Obama-era proposed haze plan for Texas buys the Trump EPA more time to reconsider the rule.

EPA extends comment deadline on Texas haze plan

EPA's extension of the public comment period for a tough Obama-era proposed haze plan for Texas buys the Trump EPA more time to reconsider the rule.

Group launches 'Shadow Cabinet' to track Trump officials

The group of former federal officials and policy experts will track Trump Cabinet officials with the goal of exposing when they “don't lead but mislead.”

Our most read: all about Pruitt’s priorities and staff opposition

More questions than answers as the Pruitt era comes into being.

Trump launches FY 18 budget review expected to cut billions from EPA

The administration is beginning the “passback” process, starting internal deliberations and discussions.

EPA pushes Flint public participation

EPA is pushing back on a request from Flint, MI, officials to extend a public participation plan deadline.

E-wire: A daily news roundup

What is the Trump administration's first budget plan going to mean for EPA? Plus, Pruitt picks a policy chief and EPA delays mine cleanup rule.

Read all the latest EPA news, analysis and documents →

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Mailing address: 1919 South Eads Street, Suite 201, Arlington VA 22202

Telephone: 703-416-8500 or 1-800-424-9068

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To: Hoffman, Wendy[Hoffman.Wendy@epa.gov]
From: InsideEPA.com
Sent: Tue 1/31/2017 12:15:32 PM
Subject: The Morning Headlines from InsideEPA.com -- January 31, 2017

The critical environmental policy-making news you need as you begin your day

January 31, 2017

Latest News

Trump's Court Prospects Lack EPA Records But Likely To Back Deregulation

The three appellate court judges President Donald Trump is considering selecting as his nominee to the Supreme Court lack records, as judges, on EPA regulations, though each of them is expected to strongly support the administration's deregulatory efforts given their rulings or their records prior to being tapped for the bench.

EPA Leaders Seek To Quell Staff Fears Of Trump Administration Cuts

EPA's career and political leaders are seeking to calm employees' fears of coming staff cuts, budget reductions and other rollbacks at the agency, with recent internal messages saying the Trump administration is following routine procedures for reviewing existing policy at the start of a new term while warning that media reports on some proposals are “just not accurate.”

States Seek To Intervene In Suits Over EPA's ESPS Reconsideration Denials

A coalition of states is seeking to intervene in consolidated litigation brought by a separate coalition of states and industry groups over EPA's denial of administrative petitions to reconsider various aspects of its greenhouse gas standards for existing power plants, litigation that could allow the Trump administration to overturn key parts of the rule should it be upheld.

CARB Chief Says Trump Blocking Vehicle Rules Would 'Destroy' GHG Plan

California's top air regulator says that if the Trump administration or Congress succeeds in blocking the state's ability to enforce its current vehicle greenhouse gas standards or adopt future rules, such a move would “destroy” the state's sweeping regulatory plan to meet its 2030 GHG target.

EPA Highlights Template For Future Superfund Financial Regulations

EPA is highlighting three areas of its proposed first-ever Superfund financial responsibility rule for the hardrock mining sector that could serve as a template for any future financial assurance regulations for other industrial sectors, even as the

rule is at risk of being scrapped by GOP lawmakers.

CSAPR Update Rule's Opponents Outline Issues In New D.C. Circuit Suit

State and industry opponents of EPA's updated Cross-State Air Pollution Rule (CSAPR) for power plant emissions trading are setting out their arguments in litigation against the rule in the U.S. Court of Appeals for the District of Columbia Circuit, amid doubts over whether the Trump EPA will defend the rule.

Trump Signs Order Setting 'One In, Two Out' Mandate For New Regulations

President Donald Trump signed an executive order Jan. 30 directing EPA and other regulatory agencies to eliminate two existing rules for every one they enact, while also setting an overall "budget" for new regulatory costs each year -- the first concrete step in the new administration's plan to slash environmental rules they consider too burdensome.

Daily Feed

Transition: Democrats question DOJ review of Trump orders

Democrats say Trump's executive orders have been issued without Department of Justice review, which would break a policy in place since the Kennedy era and cloud their legality.

Opinion: Scalia's ruling on EPA's mercury rule may doom border wall

Scalia's ruling requiring EPA to assess the costs and benefits of its mercury rule could hamper Trump administration plans to build a wall along the southern border, three law professors say.

Congress: EPW schedules Feb. 1 vote on Pruitt's nomination

The nominee is widely expected to win approval from the committee and head to the floor when he will win support from Republicans and some Democrats.

Litigation: D.C. Circuit sets argument date for RFS suit

The arguments could force the Trump administration to indicate how it plans to address portions of the controversial program.

Our most read: Trump's EPA, one week into a new era

From our most read stories: rules were suspended, a deregulatory plan readied and the agency braced for more changes -- all in the first week.

Ewire: A daily news roundup

EPA rules escape congressional repeal. Plus: EPA lifts temporary grant freeze and more.

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To: Hoffman, Wendy[Hoffman.Wendy@epa.gov]
From: BNA Highlights
Sent: Wed 1/11/2017 3:13:55 AM
Subject: Jan. 11 -- BNA, Inc. Daily Environment Report

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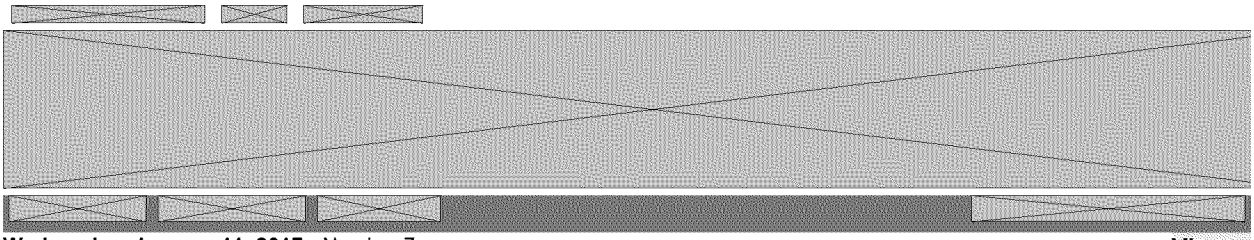

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LEADING THE NEWS

EPA
Possible Ethical Dilemma for Sessions Could Complicate Pruitt's Nomination
Scott Pruitt's chances of becoming the next EPA administrator face a significant roadblock if Sen. Jeff Sessions heeds calls to recuse himself from voting on the nomination. But while a Democratic senator and others are pressuring...

NEWS

Air Pollution
China's Clean Air Bid Scares Rivals in Duel Over Dirty Fuel
China's recent push to clean up its air is leaving some of its neighbors feeling threatened....

Air Pollution
Senator Seeks 10-Year Delay of EPA Ozone Rule in Budget Amendment
An Arizona Republican is launching one of the first of what are likely to be several attempts to delay or roll back the Environmental Protection Agency's ozone rule, with an amendment he hopes to attach to a budget resolution being debated...

Air Pollution
VW Closes in on $4.3 Billion U.S. Accord in Diesel Scandal
Volkswagen AG is closing in on a deal to pay $4.3 billion in criminal and civil penalties to settle a U.S. probe into the rigging of diesel-powered cars to cheat emissions tests....

Biodiversity
Areas Along China's Yangtze River to Set Boundaries on Development

Eleven provinces along China's most important river, the Yangtze, must establish protected zones where most future development will be banned, the government announced....

Budget
California Budget Plan Calls for Carbon Trading Program Extension
California Gov. Jerry Brown (D) wants the Legislature to pass an "urgency" measure to extend the state's carbon cap-and-trade program beyond 2020....

Budget
House Appropriations Subcommittees Retain Chairmen
Rep. Ken Calvert (R-Calif.) will once again lead the Appropriations Committee Interior and Environment Subcommittee, which has jurisdiction over the Environmental Protection Agency and Interior Department, the full committee said Jan....

Chemicals
Rocket Fuel Chemical Increasingly Found in Food, Agency Says
Young children in the U.S. are more exposed to perchlorate, a toxic chemical that can affect hormone production, through their food than they were a decade ago, federal researchers found....

Climate Change
Bipartisan Caucus Wants to Engage Trump on Climate Change
The fledgling Bipartisan Climate Solutions Caucus wants to engage the incoming Trump administration on climate change policy in the new Congress after the group spent much of its first year raising awareness and building its membership....

Climate Change
Businesses Tout Economic Benefits of Paris Climate Deal to Trump
More than 600 companies made the economic case Jan. 10 for keeping the U.S. in the international Paris climate deal in a bid to woo support from businessman and President-elect Donald Trump, who has teased pulling the country out of the agreement....

Coal Mining
Can West Virginia's New Governor Save Coal Country?
Jim Justice—6 feet 7 inches, 375 pounds, rumpled in the extreme—has the friendly, shambling demeanor of a high school basketball coach, which he's been for decades. He's also the richest man in West Virginia, with...

Coal Mining
Save Stream Protection, Methane Rules, Rep. Grijalva Urges
The ranking member on the House Natural Resources Committee reached out to lawmakers of both parties Jan. 9 in a bid to hold the line on two recent environmental rules that Republicans have already said they want to claw back....

Congress
Tillerson Must Answer for Trump, Big Oil, Even Putin in Hearing
Rex Tillerson helped seal multibillion-dollar deals from Venezuela to Russia as Exxon Mobil Corp.'s CEO. Now senators weighing his nomination for secretary of state will want to know if he can be as effective working for the U.S.—even...

Emissions Trading
EU Faces More Wrangling on Carbon Reform as Malta Becomes Chair
The European Union is poised for months of political wrangling over a post-2020 overhaul of the region's ailing carbon market after differences on how ambitious the reform should be kept governments from reaching an agreement last...

Endangered Species
Bee Protections May Sting Pesticide Use, Construction Work
A federal decision to list a bumblebee species as endangered could have big impacts on pesticide use and construction activity in the eastern U.S....

Energy
Bill Encouraging Energy Efficiency in Agencies Passes House
A bill that encourages federal agencies to explore ways to use energy-efficiency technologies passed the House under rules that sidestep an actual vote. ...

Energy
China Aims for 15 Percent Energy Intensity Cut by 2020
China's central government announced a national goal to cut energy consumption per unit of gross domestic product by 15 percent by the end of 2020, when compared to 2015 levels....

Energy
NRG, JX Nippon Open $1B Clean Coal Power Project in Texas
U.S. power generator NRG Energy Inc. and Japanese energy producer JX Nippon Oil & Gas Exploration Corp. have finished the world's largest system to capture carbon dioxide produced from burning coal at a power plant....

Energy
Oil States View Taxes Warily in Battling Crude Market Dips
Historic declines in oil prices are sending states dependent on the slippery resource scrambling for ways to make up budget shortfalls in 2017 and beyond....

Energy
Probe of Venezuelan Energy Company in U.S. Nets Two More Guilty Pleas
Two U.S. businessmen pleaded guilty to bribery charges for their roles in trying to win contracts from Petroleos de Venezuela SA, as part of a larger, ongoing U.S. investigation into corruption at the state-owned energy company....

Energy
Sessions Discloses Petrobras Bond Holdings as U.S. Probe Unfolds
Sen. Jeff Sessions (R-Ala.), the nominee to head the Justice Department, declared that he owns thousands of dollars' worth of bonds in the Brazilian state-owned oil company that the department's prosecutors are investigating...

Environmental Reviews
State DOTs Tout Benefits of Assuming Federal NEPA Authority
State transportation agencies are finding substantial time and cost savings by conducting their own environmental reviews, taking over that role from the federal government....

Hazardous Waste
Stakeholders Weigh in on EPA's Paperless Waste Tracker
The Environmental Protection Agency's hazardous waste tracking system has a few more hurdles to clear before it goes paperless....

Oil & Gas
Macri Reaches Accord for $5 Billion Argentine Gas Investment
Argentine President Mauricio Macri's brokered an accord to drive investment in the second-biggest shale oil and gas deposit in the world, presaging a new approach to resuscitating the country's faltering economy....

Oil & Gas

Oil Discoveries Seen Recovering After Crashing to 65-Year Low

The amount of oil discovered last year was the lowest since the 1950s as explorers slashed spending amid the worst downturn in a generation, according to Wood Mackenzie. The good news: It can probably only get better from here....

Regulatory Policy

PODCAST: The Scoop on 2017, Directly From the Newsroom

To give you a sense of what will be coming down the pike in 2017, this week's episode of Parts Per Billion, our biweekly environmental policy podcast, ventures out of typical our recording studio and directly into the Bloomberg BNA newsroom....

Renewable Energy

New York Governor Backs Plan to Build Wind Farm Off Long Island

New York Governor Andrew M. Cuomo is throwing his support behind Deepwater Wind LLC's plan to build a 90-megawatt wind farm off the eastern tip of Long Island....

Superfund

EPA Financial Assurance Rule Written 'in the Dark,' Per Industry

The EPA is about to get some scathing feedback from the mining industry over proposed financial responsibility requirements for potential polluters....

Water Infrastructure

EPA Says Water Loan Program Could Offer $1 Billion in Loans

A new Environmental Protection Agency program that provides loans for water infrastructure upgrades is officially up and running, according to the agency....

Water Pollution

Hill Republicans Aim to Curtail Water Rule Despite Litigation

Axing a rule clarifying the Clean Water Act's scope of jurisdiction remains a priority for congressional committee chairmen overseeing federal water pollution programs, according to interviews by Bloomberg BNA....

Water Pollution

North Dakota Hip Deep in Water Jurisdiction Issue

North Dakota landowners, many of whom eke out a living on land dotted with lakes and ponds called prairie potholes, may have no clear idea what problems await them under the new federal definition of jurisdiction of the Clean Water Act....

Water Pollution

River Water Back to Normal Two Weeks After Gold King Spill: EPA

Water quality in the Animas River returned to pre-event levels within two weeks of the August 2015 Gold King Mine spill triggered by Environmental Protection Agency contractors in southwest Colorado, according to a report from the agency....

Daily Environment Report

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To: Huggins, Richard[Huggins.Richard@epa.gov]; Radtke, Meghan[Radtke.Meghan@epa.gov]
From: Huggins, Richard
Sent: Wed 3/8/2017 4:51:02 PM
Subject: FW: DRAFT 3/7/17 108b meeting notes/action Items

Richard Huggins Jr.

Senior Special Assistant

Office of Resource Conservation and Recovery

U.S. Environmental Protection Agency

Desk: 703-308-0017 iPhone: Ex. 6 - Personal Privacy cell phone

From: Huff, Mark J
Sent: Wednesday, March 8, 2017 10:51 AM
To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>
Subject: DRAFT 3/7/17 108b meeting notes/action Items

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

To: Huggins, Richard[Huggins.Richard@epa.gov]
From: Nisbett, Deana
Sent: Mon 5/8/2017 12:22:31 PM
Subject: FW: GAO Open Recommendations status report
ORCRs - GAO_BIANNUAL_RECOMMENDATION_FOLLOW_UP_WITH_EPA.041017.xlsx

☺

Deana Nisbett

U.S. Environmental Protection Agency

Office of Land and Emergency Management (formerly OSWER)

Office of Resource Conservation and Recovery

1200 Pennsylvania Ave NW (5301P)

Washington, DC 20460

703.308.0162 (voice)

703.308.0513 (fax)

From: Sasseville, Sonya
Sent: Friday, May 05, 2017 4:59 PM
To: Nisbett, Deana <Nisbett.Deana@epa.gov>
Cc: Palmer, Scott <Palmer.Scott@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>
Subject: Re: GAO Open Recommendations status report

Thanks for checking, Deana. Here's the update:

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Please let me know if you have any questions or need anything else.

Sonya

From: Nisbett, Deana
Sent: Friday, May 05, 2017 4:38 PM
To: Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Subject: FW: GAO Open Recommendations status report

Hi Sonya,

I'm following up with you regarding the GAO update for phosphate mining. I shared a hard copy of the attached table with you yesterday. Kecia asked if we could provide her with an update by today, will you be able to make that deadline?

Let me know if you have any questions.

Deana

Deana Nisbett

U.S. Environmental Protection Agency

Office of Land and Emergency Management (formerly OSWER)

Office of Resource Conservation and Recovery

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Washington, DC 20460

703.308.0162 (voice)

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From: Nisbett, Deana
Sent: Tuesday, May 02, 2017 9:01 AM
To: Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Subject: FW: GAO Open Recommendations status report

Good Morning Sonya,

Hope you are doing well. Please review and update this recommendation status as needed, this update is due to Kecia by Friday May 5th.

Thank you,

Deana

Deana Nisbett

U.S. Environmental Protection Agency

Office of Land and Emergency Management (formerly OSWER)

Office of Resource Conservation and Recovery

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703.308.0162 (voice)

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Good morning Deana!

Hope you are well! Attached is the latest information your office provided on the GAO open recommendation for Phosphate Mining. Please let me know if you have any updates to share. If I can hear back from you by Friday, May 5, 2017, that would be great! Please let me know if you have questions. Take care!

Kecia Thornton
Office of Land and Emergency Management
Organizational Management & Integrity Staff
EPA West room 4148A
(202) 566-1913

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To: Huggins, Richard[huggins.richard@epa.gov]; Meghan Radtke (Radtke.Meghan@epa.gov)[Radtke.Meghan@epa.gov]
From: Huggins, Richard
Sent: Wed 3/8/2017 4:51:02 PM
Subject: FW: DRAFT 3/7/17 108b meeting notes/action Items

Richard Huggins Jr.

Senior Special Assistant

Office of Resource Conservation and Recovery

U.S. Environmental Protection Agency

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From: Huff, Mark J
Sent: Wednesday, March 8, 2017 10:51 AM
To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>
Subject: DRAFT 3/7/17 108b meeting notes/action Items

Here's my notes from yesterday's 3/7/17 108b meeting notes/action Items. I'm sure I've missed stuff but I tried to capture the major elements- feel free to edit as needed if folks find this helpful in guiding us forward.

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

To: Farber, Glenn[Farber.Glenn@epa.gov]; Guignet, Dennis[Guignet.Dennis@epa.gov]
From: Jenkins, Robin
Sent: Thur 7/6/2017 12:03:24 PM
Subject: RE: Options paper presented by OLEM for hardrock mining rule

Thanks, Glenn.

From: Farber, Glenn
Sent: Wednesday, July 05, 2017 5:26 PM
To: Guignet, Dennis <Guignet.Dennis@epa.gov>; Jenkins, Robin <Jenkins.Robin@epa.gov>
Subject: Options paper presented by OLEM for hardrock mining rule

FYI

Glenn Farber

Office of Policy, Office of the Administrator

202-566-0343

To: Krueger, Anna[Krueger.Anna@epa.gov]
From: InsideEPA.com
Sent: Wed 12/28/2016 12:10:11 PM
Subject: The Morning Headlines from InsideEPA.com -- December 28, 2016

The critical environmental policy-making news you need as you begin your day

December 28, 2016

Latest News

Water Funding Law's Gold King Provisions May Complicate Spill Lawsuits

Provisions in a recently enacted water infrastructure funding law directing EPA to quickly reimburse local authorities for costs in responding to the 2015 Gold King mine spill could complicate ongoing and future suits over the costs, as the law seems to set shorter standards and a higher standard of proof than in similar prior suits, an attorney says.

CLF's Exxon Suit Tees Up Ruling On Current Climate Effects, Permit Plan

Environmentalists are asking a federal judge to rule that recent severe storms and floods are direct effects of climate change, and thus must be part of permit compliance plans at ExxonMobil facilities, hoping to win a novel decision that climate change is not a speculative threat but a concrete one while highlighting charges that the company has long known of the risks but failed to act.

Western Governors Reiterate Objections To Financial Assurance Regulation

Western governors in a just-passed policy resolution are reiterating their opposition to EPA's pending Superfund financial assurance requirements for the hardrock mining sector, and cautioning that EPA should consult with states before moving forward with any plans to set similar requirements for three other industrial sectors.

Daily Feed

Biofuels: EPA cites biodiesel ruling in RFS defense

EPA says a recent appellate ruling upholding Argentinian biodiesel imports supports its defense of the RFS 'point of obligation.'

Air: Industry pins hopes on Boiler MACT remand

The wood products sector hopes the incoming Trump administration can complete a rule that has been 20 years -- and three failed tries -- in the making.

E-Wire: A daily news roundup

Trump plans rulemaking to reverse Clean Power Plan, Plus: PM science attack and EPA career staff.

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From: InsideEPA.com
Sent: Mon 7/17/2017 11:50:31 AM
Subject: Superfund Report - Latest Issue Now Available

July 17, 2017

Now available: **The latest issue of Superfund Report**.

Top Stories

Appeals Court Reinstates Bush-Era DSW Third-Party Recycler Exclusion

In a 2-1 decision, a federal appeals court has partially sided with industry in vacating most of the verified recycler exclusion contained in the Obama EPA's definition of solid waste (DSW) rule, instead reinstating a more relaxed Bush-era exclusion for third-party recyclers of hazardous secondary material that allows them to avoid stringent regulation as solid waste.

Waste Definition Ruling Prompts Mixed Reaction, Uncertainties Over Impact

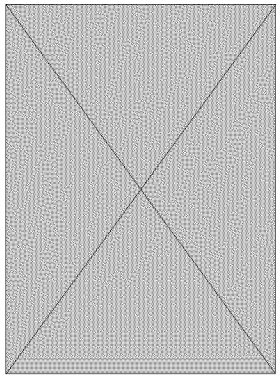
The U.S. Court of Appeals for the District of Columbia Circuit's recent ruling that vacates aspects of the Obama EPA's definition of solid waste (DSW) rule is prompting varied reaction, with the hazardous waste recycling industry concerned it will bring new uncertainties -- particularly if environmentalists push for rehearing -- and the chemical industry saying it will encourage more recycling.

DOJ Says Plaintiffs Fail To Prove Injury Justifying Suit Over '2-1' Rule Order

The Department of Justice (DOJ) says that plaintiffs cannot prove injury to justify their suit over the legality of President Donald Trump's executive order (EO) requiring EPA and other agencies to identify two rules for repeal for every new rule they issue, saying that undoing the rules would not cause harm warranting the lawsuit.

Industry, Environmentalists Bolster Opposing Arguments Over Mining Rule

Industry and environmental groups are bolstering their opposing arguments on EPA's draft Superfund financial assurance rule for the hardrock mining sector, with industry contending EPA failed to meet legal mandates to show such requirements are warranted and environmentalists stressing the need for safeguards in a time of dwindling cleanup budgets and increased waste volumes.



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To: Krueger, Anna[Krueger.Anna@epa.gov]
From: InsideEPA.com
Sent: Tue 2/28/2017 12:10:14 PM
Subject: The Morning Headlines from InsideEPA.com -- February 28, 2017

TRUMP'S EPA: Agency at a crossroads -- Complete coverage

February 28, 2017

Latest News

RFF Eyes Process For Continued Carbon 'Cost' Research In Trump Era

The economic think tank Resources for the Future (RFF) is scoping out options to press forward on research and analysis related to the climate damages metric known as the social cost of carbon (SCC), an effort that could fill gaps left by expected Trump administration disengagement on the issue.

Utility Urges 6th Circuit To Reverse 'Exceptional' Ruling On Enforcing NSR

A Michigan utility is urging the U.S. Court of Appeals for the 6th Circuit to reconsider a ruling upholding EPA's view that it can pursue Clean Air Act new source review (NSR) cases based on a facility's projected emissions, which the utility says was wrongly decided and is of "exceptional" importance to the future scope of enforcing NSR.

EPA Will Focus On Short-Term SO2 Exposures In NAAQS Risk Assessment

EPA is placing heavy emphasis on the short-term public health impacts of exposure to sulfur dioxide (SO2) air emissions in a planned risk and exposure assessment (REA) that will inform its pending decision on whether to retain, weaken, or tighten the agency's existing national ambient air quality standards (NAAQS) for the criteria pollutant.

To Woo Trump, Backers Pitch 'Business Case' For Global Aircraft GHG Deals

Environmentalists and industry groups are urging EPA and the Department of Transportation (DOT) to craft rules to implement two international agreements reached last year curbing aircraft greenhouse gases (GHGs), pitching a "business case" for the deals and arguing that they are less controversial than carbon controls directed at other industries, such as the power sector.

EPA Research Leaders Promote Relevancy, Value To Trump Administration

EPA's research leaders are seeking to demonstrate the value of the Office of Research and Development (ORD), emphasizing during a recent introductory meeting with Trump administration officials the provisions in environmental statutes that mandate various research programs, ORD's emergency and technical assistance, and other activities.

EPA Extends Time For Input On Mining Finance Rule Following Major Pressure

EPA has granted requests from lawmakers as well as the mining and other industries to extend the time for groups to weigh in on its controversial, first-time Superfund financial assurance rule for the hardrock mining sector, even as the agency faces a Dec. 1 court-ordered deadline to take final action on a rule.

Daily Feed

Michigan seeks to address vapor intrusion as EPA rule delayed

Michigan is seeking more than $5 million to address vapor intrusion even as the Trump administration has delayed an EPA rule that would address the issue.

EPA extends comment deadline on Texas haze plan

EPA's extension of the public comment period for a tough Obama-era proposed haze plan for Texas buys the Trump EPA more time to reconsider the rule.

EPA extends comment deadline on Texas haze plan

EPA's extension of the public comment period for a tough Obama-era proposed haze plan for Texas buys the Trump EPA more time to reconsider the rule.

Group launches 'Shadow Cabinet' to track Trump officials

The group of former federal officials and policy experts will track Trump Cabinet officials with the goal of exposing when they “don't lead but mislead.”

Our most read: all about Pruitt’s priorities and staff opposition

More questions than answers as the Pruitt era comes into being.

Trump launches FY 18 budget review expected to cut billions from EPA

The administration is beginning the “passback” process, starting internal deliberations and discussions.

EPA pushes Flint public participation

EPA is pushing back on a request from Flint, MI, officials to extend a public participation plan deadline.

E-wire: A daily news roundup

What is the Trump administration's first budget plan going to mean for EPA? Plus, Pruitt picks a policy chief and EPA delays mine cleanup rule.

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To: Krueger, Anna[Krueger.Anna@epa.gov]
From: InsideEPA.com
Sent: Tue 1/31/2017 12:10:14 PM
Subject: The Morning Headlines from InsideEPA.com -- January 31, 2017

The critical environmental policy-making news you need as you begin your day

January 31, 2017

Latest News

Trump's Court Prospects Lack EPA Records But Likely To Back Deregulation

The three appellate court judges President Donald Trump is considering selecting as his nominee to the Supreme Court lack records, as judges, on EPA regulations, though each of them is expected to strongly support the administration's deregulatory efforts given their rulings or their records prior to being tapped for the bench.

EPA Leaders Seek To Quell Staff Fears Of Trump Administration Cuts

EPA's career and political leaders are seeking to calm employees' fears of coming staff cuts, budget reductions and other rollbacks at the agency, with recent internal messages saying the Trump administration is following routine procedures for reviewing existing policy at the start of a new term while warning that media reports on some proposals are “just not accurate.”

States Seek To Intervene In Suits Over EPA's ESPS Reconsideration Denials

A coalition of states is seeking to intervene in consolidated litigation brought by a separate coalition of states and industry groups over EPA's denial of administrative petitions to reconsider various aspects of its greenhouse gas standards for existing power plants, litigation that could allow the Trump administration to overturn key parts of the rule should it be upheld.

CARB Chief Says Trump Blocking Vehicle Rules Would 'Destroy' GHG Plan

California's top air regulator says that if the Trump administration or Congress succeeds in blocking the state's ability to enforce its current vehicle greenhouse gas standards or adopt future rules, such a move would “destroy” the state's sweeping regulatory plan to meet its 2030 GHG target.

EPA Highlights Template For Future Superfund Financial Regulations

EPA is highlighting three areas of its proposed first-ever Superfund financial responsibility rule for the hardrock mining sector that could serve as a template for any future financial assurance regulations for other industrial sectors, even as the

rule is at risk of being scrapped by GOP lawmakers.

CSAPR Update Rule's Opponents Outline Issues In New D.C. Circuit Suit

State and industry opponents of EPA's updated Cross-State Air Pollution Rule (CSAPR) for power plant emissions trading are setting out their arguments in litigation against the rule in the U.S. Court of Appeals for the District of Columbia Circuit, amid doubts over whether the Trump EPA will defend the rule.

Trump Signs Order Setting 'One In, Two Out' Mandate For New Regulations

President Donald Trump signed an executive order Jan. 30 directing EPA and other regulatory agencies to eliminate two existing rules for every one they enact, while also setting an overall "budget" for new regulatory costs each year -- the first concrete step in the new administration's plan to slash environmental rules they consider too burdensome.

Daily Feed

Transition: Democrats question DOJ review of Trump orders

Democrats say Trump's executive orders have been issued without Department of Justice review, which would break a policy in place since the Kennedy era and cloud their legality.

Opinion: Scalia's ruling on EPA's mercury rule may doom border wall

Scalia's ruling requiring EPA to assess the costs and benefits of its mercury rule could hamper Trump administration plans to build a wall along the southern border, three law professors say.

Congress: EPW schedules Feb. 1 vote on Pruitt's nomination

The nominee is widely expected to win approval from the committee and head to the floor when he will win support from Republicans and some Democrats.

Litigation: D.C. Circuit sets argument date for RFS suit

The arguments could force the Trump administration to indicate how it plans to address portions of the controversial program.

Our most read: Trump's EPA, one week into a new era

From our most read stories: rules were suspended, a deregulatory plan readied and the agency braced for more changes -- all in the first week.

Ewire: A daily news roundup

EPA rules escape congressional repeal. Plus: EPA lifts temporary grant freeze and more.

Read all the latest EPA news, analysis and documents →

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To: Krueger, Anna[Krueger.Anna@epa.gov]; Harman, Greta[Harman.Greta@epa.gov]
From: Balent, Jean
Sent: Thur 1/12/2017 3:53:14 PM
Subject: FW: Inquiry from Utah - CERCLA 108b hardrock mining rule

Please see question below

Thank you,

Jean M Balent

Environmental Scientist

USEPA

Office of Superfund Remediation and Technology Innovation

Phone 703-603-9924

Email balent.jean@epa.gov

Fax 703-603-9116

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From: Douglas Bacon [mailto:dbacon@utah.gov]
Sent: Tuesday, January 10, 2017 4:57 PM
To: Balent, Jean <Balent.Jean@epa.gov>
Cc: Hans Millican <hmillican@utah.gov>
Subject: Inquiry from Utah - CERCLA 108b hardrock mining rule

Good afternoon Ms. Balent,

On behalf of the State of Utah Department of Environmental Quality, I have been

following and reviewing (as applicable) EPA's development efforts as it relates to the hardrock mining financial responsibilities rule under CERCLA 108b. I have also recently been coordinating review efforts with our Department of Natural Resources - Division of Oil, Gas and Mining.

During a recent webinar it was mentioned that EPA evaluated the range of mining sites in the country as part of the rule assessment. This evaluation then went to the degree of narrowing the range down to the sites which posed a higher risk, and thus would be subject to the rule. If I recall correctly some 221 sites were subsequently narrowed down to a smaller discrete subset. Does and can EPA maintain and thus subsequently provide the list of mine sites in the US that it feels will be subject to the provisions of the pending rule.?

If a list of the discrete sites cannot be released (though I wonder why not), could EPA provide a sense of the types of sites (from a perspective of size, scope of mine waste management, types of mine waste, etc.) that are in the list? Certainly we are keen here in Utah to get a sense of the sites in our state, but would be interested (from a comparative stand point) to see the entire list.

I look forward to your reply, thank you for your time.

Douglas Bacon | Project Manager - Kennecott | ITRC - SEC & Utah Point of Contact

801-536-4282 (office) | **www.deq.utah.gov** | www.itrcweb.org

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To: Krueger, Anna[Krueger.Anna@epa.gov]
From: Harman, Greta
Sent: Wed 12/7/2016 2:55:29 PM
Subject: FW: *UPDATED*--Media Round Up for the Proposed CERCLA 108b rule

Did this ever make it to your team?

Greta Harman

U.S. Environmental Protection Agency

Office of Resource Conservation and Recovery

(703) 308-8461

From: Sullivan, Drew
Sent: Monday, December 05, 2016 12:23 PM
To: Ames, Jeremy <Ames.Jeremy@epa.gov>
Cc: ORCR Press <ORCR_Press@epa.gov>
Subject: *UPDATED*--Media Round Up for the Proposed CERCLA 108b rule

Good afternoon,

Here's the updated roundup for media coverage of the proposed rule. I added to what I compiled Friday afternoon.

-Drew

Press:

- Washington Examiner (blog): EPA sparks GOP ire with eleventh-hour mining rules

- Central Valley Business Times: New restrictions proposed for hard rock mining

- Environment Guru: EPA CERCLA financial assurance rule ignores states and small business

- The Hill: EPA seeks to ensure mining companies can pay cleanup costs
- Mining Journal: Govt, mining bodies in CERCLA row

•□□□□□□□ E&E News: Deadline arrives for new EPA bonding rules

•□□□□□□□ Minnesota Public Radio News: EPA proposes rule requiring mines to cover clean-up costs

•□□□□□□□ PoliticalNews.me: EPA's Unnecessary, Burdensome CERCLA Rule Will Harm Mining, Manufacturing in America

•□□□□□□□ The Associated Press: EPA to require mines to offer cleanup assurances

o Similar AP stories published by The Washington Post, The Denver Post, The Washington Times, The Daily Progress, La Crosse Tribune, The Daily Inter Lake, Great Falls Tribune, and The Cortez Journal

-

Statements:

•□□□□□□□ National Mining Association: EPA's proposed financial responsibility rule for miners a 'job killer' — industry

•□□□□□□□ Water Online: EPA Proposes Financial Responsibility Requirements For Hardrock Mining Industry

•□□□□□□□ Environment Guru: EPA to require mines to offer cleanup assurances

•□□□□□□□ Environment Guru: SUPERFUND: EPA proposes mine bonding rule, targets other industries

•□□□□□□□ Federal Regulations Advisor: Monday Morning Regulatory Transition Review – 12/5/16: Healthcare Funding Responses; Hardrock Mining Liabilities; Mid-Term CAFE; Last Education Regulations Tango & Banning the Personnel Box

•□□□□□□□ American Exploration & Mining Association: EPA ISSUES JOB KILLING RULE

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Social Media:

American Exploration @MiningAmerica · 2h
Job killing #**CERCLA** rule issued by @EPA. Duplicates & overlaps current effective federal & state programs. #Jobs bit.ly/2gveLdX

CVBT @cvbtnews · 54m
New restrictions proposed for hard rock mining centralvalleybusinesstimes.com/stories/001/?l... #CVBT #**epa**

Environment Guru @environmentguru · 10h
EPA CERCLA financial assurance rule ignores states and small business: The American... environmentguru.com/pages/elements... #**CERCLA** #Superfund #forest

EPA CERCLA financial assurance rule ignores stat...
The American Exploration & Mining Association (AEMA) reports the US Environmental Protection Agency (EPA) has released "its deeply flawed proposed financial
environmentguru.com

Toxic - EGuru @Toxicevironguru · Dec 3

EPA Proposes Financial Responsibility Requirements for Hardrock Mining Industry: WASHINGTON – Following a...
environmentguru.com/pages/elements... **#CERCLA**

EPA Proposes Financial Responsibility Requireme...

WASHINGTON – Following a court order and Congressional directive under the Comprehensive Environmental Response, Compensation, and Liability...

environmentguru.com

dan oancea @dankogaion · 6h

#EPA to require #mines to offer cleanup assurances

EPA Proposes Financial Responsibility Requireme...

Following a court order and Congressional directive under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the U.S. E...

wateronline.com

Toxic - EGuru @Toxicevironguru · 2h
EPA CERCLA financial assurance rule ignores states and small business: The American... environmentguru.com/pages/elements... #CERCLA #**Superfund** #forest

EPA CERCLA financial assurance rule ignores stat...
The American Exploration & Mining Association (AEMA) reports the US Environmental Protection Agency (EPA) has released "its deeply flawed proposed financial
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Environment Guru @environmentguru · 13h
EPA CERCLA financial assurance rule ignores states and small business: The American... environmentguru.com/pages/elements... #CERCLA #**Superfund** #forest

Toxic - EGuru @Toxicevironguru · Dec 3
EPA to require mines to offer cleanup assurances: The Environmental Protection Agency on Friday said it... environmentguru.com/pages/elements... #**Superfund**

EPA to require mines to offer cleanup assurances
The Environmental Protection Agency on Friday said it plans to require mining companies to show they have the financial wherewithal to clean up their pollution
environmentguru.com

Toxic - EGuru @Toxicevironguru · Dec 2

SUPERFUND: EPA proposes mine bonding rule, targets other industries: U.S. EPA Administrator Gina… environmentguru.com/pages/elements… **#Superfund**

SUPERFUND: EPA proposes mine bonding rule, tar…

U.S. EPA Administrator Gina McCarthy signed a proposed rule late yesterday meant to protect taxpayers from cleaning up hardrock mining pollution.

environmentguru.com

Toxic - EGuru @Toxicevironguru · Dec 2

SUPERFUND: Deadline arrives for new EPA bonding rules: U.S. EPA today is expected to publish a proposed… environmentguru.com/pages/elements… **#Superfund**

SUPERFUND: Deadline arrives for new EPA bondin…

U.S. EPA today is expected to publish a proposed rule on new Superfund program requirements for hardrock mining and also say whether it intends to pursue

environmentguru.com

To: Krueger, Anna[Krueger.Anna@epa.gov]
From: BNA Highlights
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Subject: Jan. 11 -- BNA, Inc. Daily Environment Report

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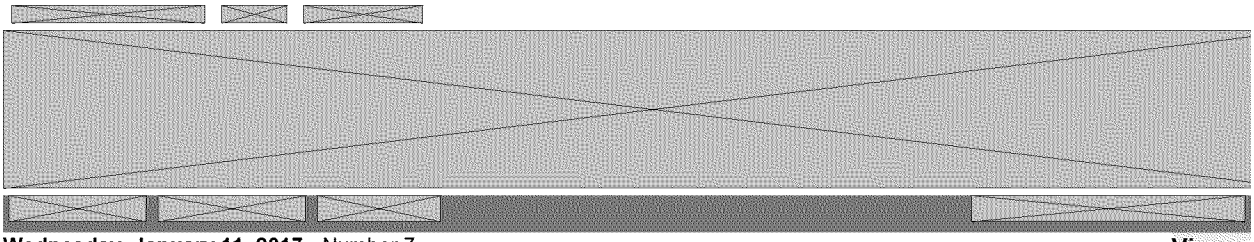

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LEADING THE NEWS

EPA
Possible Ethical Dilemma for Sessions Could Complicate Pruitt's Nomination
Scott Pruitt's chances of becoming the next EPA administrator face a significant roadblock if Sen. Jeff Sessions heeds calls to recuse himself from voting on the nomination. But while a Democratic senator and others are pressuring...

NEWS

Air Pollution
China's Clean Air Bid Scares Rivals in Duel Over Dirty Fuel
China's recent push to clean up its air is leaving some of its neighbors feeling threatened....

Air Pollution
Senator Seeks 10-Year Delay of EPA Ozone Rule in Budget Amendment
An Arizona Republican is launching one of the first of what are likely to be several attempts to delay or roll back the Environmental Protection Agency's ozone rule, with an amendment he hopes to attach to a budget resolution being debated...

Air Pollution
VW Closes in on $4.3 Billion U.S. Accord in Diesel Scandal
Volkswagen AG is closing in on a deal to pay $4.3 billion in criminal and civil penalties to settle a U.S. probe into the rigging of diesel-powered cars to cheat emissions tests....

Biodiversity
Areas Along China's Yangtze River to Set Boundaries on Development

Eleven provinces along China's most important river, the Yangtze, must establish protected zones where most future development will be banned, the government announced....

Budget
California Budget Plan Calls for Carbon Trading Program Extension
California Gov. Jerry Brown (D) wants the Legislature to pass an "urgency" measure to extend the state's carbon cap-and-trade program beyond 2020....

Budget
House Appropriations Subcommittees Retain Chairmen
Rep. Ken Calvert (R-Calif.) will once again lead the Appropriations Committee Interior and Environment Subcommittee, which has jurisdiction over the Environmental Protection Agency and Interior Department, the full committee said Jan....

Chemicals
Rocket Fuel Chemical Increasingly Found in Food, Agency Says
Young children in the U.S. are more exposed to perchlorate, a toxic chemical that can affect hormone production, through their food than they were a decade ago, federal researchers found....

Climate Change
Bipartisan Caucus Wants to Engage Trump on Climate Change
The fledgling Bipartisan Climate Solutions Caucus wants to engage the incoming Trump administration on climate change policy in the new Congress after the group spent much of its first year raising awareness and building its membership....

Climate Change
Businesses Tout Economic Benefits of Paris Climate Deal to Trump
More than 600 companies made the economic case Jan. 10 for keeping the U.S. in the international Paris climate deal in a bid to woo support from businessman and President-elect Donald Trump, who has teased pulling the country out of the agreement....

Coal Mining
Can West Virginia's New Governor Save Coal Country?
Jim Justice—6 feet 7 inches, 375 pounds, rumpled in the extreme—has the friendly, shambling demeanor of a high school basketball coach, which he's been for decades. He's also the richest man in West Virginia, with...

Coal Mining
Save Stream Protection, Methane Rules, Rep. Grijalva Urges
The ranking member on the House Natural Resources Committee reached out to lawmakers of both parties Jan. 9 in a bid to hold the line on two recent environmental rules that Republicans have already said they want to claw back....

Congress
Tillerson Must Answer for Trump, Big Oil, Even Putin in Hearing
Rex Tillerson helped seal multibillion-dollar deals from Venezuela to Russia as Exxon Mobil Corp.'s CEO. Now senators weighing his nomination for secretary of state will want to know if he can be as effective working for the U.S.—even...

Emissions Trading
EU Faces More Wrangling on Carbon Reform as Malta Becomes Chair
The European Union is poised for months of political wrangling over a post-2020 overhaul of the region's ailing carbon market after differences on how ambitious the reform should be kept governments from reaching an agreement last...

Endangered Species
Bee Protections May Sting Pesticide Use, Construction Work
A federal decision to list a bumblebee species as endangered could have big impacts on pesticide use and construction activity in the eastern U.S....

Energy
Bill Encouraging Energy Efficiency in Agencies Passes House
A bill that encourages federal agencies to explore ways to use energy-efficiency technologies passed the House under rules that sidestep an actual vote. ...

Energy
China Aims for 15 Percent Energy Intensity Cut by 2020
China's central government announced a national goal to cut energy consumption per unit of gross domestic product by 15 percent by the end of 2020, when compared to 2015 levels....

Energy
NRG, JX Nippon Open $1B Clean Coal Power Project in Texas
U.S. power generator NRG Energy Inc. and Japanese energy producer JX Nippon Oil & Gas Exploration Corp. have finished the world's largest system to capture carbon dioxide produced from burning coal at a power plant....

Energy
Oil States View Taxes Warily in Battling Crude Market Dips
Historic declines in oil prices are sending states dependent on the slippery resource scrambling for ways to make up budget shortfalls in 2017 and beyond....

Energy
Probe of Venezuelan Energy Company in U.S. Nets Two More Guilty Pleas
Two U.S. businessmen pleaded guilty to bribery charges for their roles in trying to win contracts from Petroleos de Venezuela SA, as part of a larger, ongoing U.S. investigation into corruption at the state-owned energy company....

Energy
Sessions Discloses Petrobras Bond Holdings as U.S. Probe Unfolds
Sen. Jeff Sessions (R-Ala.), the nominee to head the Justice Department, declared that he owns thousands of dollars' worth of bonds in the Brazilian state-owned oil company that the department's prosecutors are investigating...

Environmental Reviews
State DOTs Tout Benefits of Assuming Federal NEPA Authority
State transportation agencies are finding substantial time and cost savings by conducting their own environmental reviews, taking over that role from the federal government....

Hazardous Waste
Stakeholders Weigh in on EPA's Paperless Waste Tracker
The Environmental Protection Agency's hazardous waste tracking system has a few more hurdles to clear before it goes paperless....

Oil & Gas
Macri Reaches Accord for $5 Billion Argentine Gas Investment
Argentine President Mauricio Macri's brokered an accord to drive investment in the second-biggest shale oil and gas deposit in the world, presaging a new approach to resuscitating the country's faltering economy....

Oil & Gas

Oil Discoveries Seen Recovering After Crashing to 65-Year Low

The amount of oil discovered last year was the lowest since the 1950s as explorers slashed spending amid the worst downturn in a generation, according to Wood Mackenzie. The good news: It can probably only get better from here....

Regulatory Policy

PODCAST: The Scoop on 2017, Directly From the Newsroom

To give you a sense of what will be coming down the pike in 2017, this week's episode of Parts Per Billion, our biweekly environmental policy podcast, ventures out of typical our recording studio and directly into the Bloomberg BNA newsroom....

Renewable Energy

New York Governor Backs Plan to Build Wind Farm Off Long Island

New York Governor Andrew M. Cuomo is throwing his support behind Deepwater Wind LLC's plan to build a 90-megawatt wind farm off the eastern tip of Long Island....

Superfund

EPA Financial Assurance Rule Written 'in the Dark,' Per Industry

The EPA is about to get some scathing feedback from the mining industry over proposed financial responsibility requirements for potential polluters....

Water Infrastructure

EPA Says Water Loan Program Could Offer $1 Billion in Loans

A new Environmental Protection Agency program that provides loans for water infrastructure upgrades is officially up and running, according to the agency....

Water Pollution

Hill Republicans Aim to Curtail Water Rule Despite Litigation

Axing a rule clarifying the Clean Water Act's scope of jurisdiction remains a priority for congressional committee chairmen overseeing federal water pollution programs, according to interviews by Bloomberg BNA....

Water Pollution

North Dakota Hip Deep in Water Jurisdiction Issue

North Dakota landowners, many of whom eke out a living on land dotted with lakes and ponds called prairie potholes, may have no clear idea what problems await them under the new federal definition of jurisdiction of the Clean Water Act....

Water Pollution

River Water Back to Normal Two Weeks After Gold King Spill: EPA

Water quality in the Animas River returned to pre-event levels within two weeks of the August 2015 Gold King Mine spill triggered by Environmental Protection Agency contractors in southwest Colorado, according to a report from the agency....

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From: Mahmud, Shahid
Sent: Wed 1/11/2017 4:35:38 PM
Subject: EPA Financial Assurance Rule Written 'in the Dark,' Per Industry - Article

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Subject: The Morning Headlines from InsideEPA.com -- February 28, 2017

The critical environmental policy-making news you need as you begin your day

February 28, 2017

Latest News

RFF Eyes Process For Continued Carbon 'Cost' Research In Trump Era

The economic think tank Resources for the Future (RFF) is scoping out options to press forward on research and analysis related to the climate damages metric known as the social cost of carbon (SCC), an effort that could fill gaps left by expected Trump administration disengagement on the issue.

Utility Urges 6th Circuit To Reverse 'Exceptional' Ruling On Enforcing NSR

A Michigan utility is urging the U.S. Court of Appeals for the 6th Circuit to reconsider a ruling upholding EPA's view that it can pursue Clean Air Act new source review (NSR) cases based on a facility's projected emissions, which the utility says was wrongly decided and is of “exceptional” importance to the future scope of enforcing NSR.

EPA Will Focus On Short-Term SO2 Exposures In NAAQS Risk Assessment

EPA is placing heavy emphasis on the short-term public health impacts of exposure to sulfur dioxide (SO2) air emissions in a planned risk and exposure assessment (REA) that will inform its pending decision on whether to retain, weaken, or tighten the agency's existing national ambient air quality standards (NAAQS) for the criteria pollutant.

To Woo Trump, Backers Pitch 'Business Case' For Global Aircraft GHG Deals

Environmentalists and industry groups are urging EPA and the Department of Transportation (DOT) to craft rules to implement two international agreements reached last year curbing aircraft greenhouse gases (GHGs), pitching a “business case” for the deals and arguing that they are less controversial than carbon controls directed at other industries, such as the power sector.

EPA Research Leaders Promote Relevancy, Value To Trump Administration

EPA's research leaders are seeking to demonstrate the value of the Office of Research and Development (ORD), emphasizing during a recent introductory

meeting with Trump administration officials the provisions in environmental statutes that mandate various research programs, ORD's emergency and technical assistance, and other activities.

EPA Extends Time For Input On Mining Finance Rule Following Major Pressure

EPA has granted requests from lawmakers as well as the mining and other industries to extend the time for groups to weigh in on its controversial, first-time Superfund financial assurance rule for the hardrock mining sector, even as the agency faces a Dec. 1 court-ordered deadline to take final action on a rule.

Daily Feed

Michigan seeks to address vapor intrusion as EPA rule delayed

Michigan is seeking more than $5 million to address vapor intrusion even as the Trump administration has delayed an EPA rule that would address the issue.

EPA extends comment deadline on Texas haze plan

EPA's extension of the public comment period for a tough Obama-era proposed haze plan for Texas buys the Trump EPA more time to reconsider the rule.

EPA extends comment deadline on Texas haze plan

EPA's extension of the public comment period for a tough Obama-era proposed haze plan for Texas buys the Trump EPA more time to reconsider the rule.

Group launches 'Shadow Cabinet' to track Trump officials

The group of former federal officials and policy experts will track Trump Cabinet officials with the goal of exposing when they “don't lead but mislead.”

Our most read: all about Pruitt’s priorities and staff opposition

More questions than answers as the Pruitt era comes into being.

Trump launches FY 18 budget review expected to cut billions from EPA

The administration is beginning the “passback” process, starting internal deliberations and discussions.

EPA pushes Flint public participation

EPA is pushing back on a request from Flint, MI, officials to extend a public participation plan deadline.

E-wire: A daily news roundup

What is the Trump administration's first budget plan going to mean for EPA? Plus, Pruitt picks a policy chief and EPA delays mine cleanup rule.

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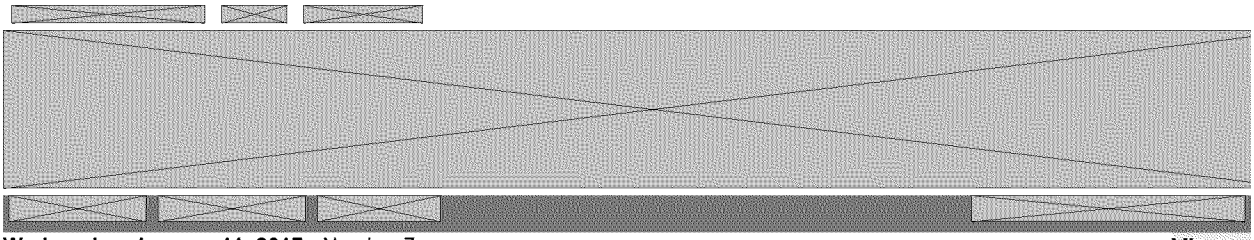

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LEADING THE NEWS

EPA
Possible Ethical Dilemma for Sessions Could Complicate Pruitt's Nomination
Scott Pruitt's chances of becoming the next EPA administrator face a significant roadblock if Sen. Jeff Sessions heeds calls to recuse himself from voting on the nomination. But while a Democratic senator and others are pressuring...

NEWS

Air Pollution
China's Clean Air Bid Scares Rivals in Duel Over Dirty Fuel
China's recent push to clean up its air is leaving some of its neighbors feeling threatened....

Air Pollution
Senator Seeks 10-Year Delay of EPA Ozone Rule in Budget Amendment
An Arizona Republican is launching one of the first of what are likely to be several attempts to delay or roll back the Environmental Protection Agency's ozone rule, with an amendment he hopes to attach to a budget resolution being debated...

Air Pollution
VW Closes in on $4.3 Billion U.S. Accord in Diesel Scandal
Volkswagen AG is closing in on a deal to pay $4.3 billion in criminal and civil penalties to settle a U.S. probe into the rigging of diesel-powered cars to cheat emissions tests....

Biodiversity
Areas Along China's Yangtze River to Set Boundaries on Development

Eleven provinces along China's most important river, the Yangtze, must establish protected zones where most future development will be banned, the government announced....

Budget
California Budget Plan Calls for Carbon Trading Program Extension
California Gov. Jerry Brown (D) wants the Legislature to pass an "urgency" measure to extend the state's carbon cap-and-trade program beyond 2020....

Budget
House Appropriations Subcommittees Retain Chairmen
Rep. Ken Calvert (R-Calif.) will once again lead the Appropriations Committee Interior and Environment Subcommittee, which has jurisdiction over the Environmental Protection Agency and Interior Department, the full committee said Jan....

Chemicals
Rocket Fuel Chemical Increasingly Found in Food, Agency Says
Young children in the U.S. are more exposed to perchlorate, a toxic chemical that can affect hormone production, through their food than they were a decade ago, federal researchers found....

Climate Change
Bipartisan Caucus Wants to Engage Trump on Climate Change
The fledgling Bipartisan Climate Solutions Caucus wants to engage the incoming Trump administration on climate change policy in the new Congress after the group spent much of its first year raising awareness and building its membership....

Climate Change
Businesses Tout Economic Benefits of Paris Climate Deal to Trump
More than 600 companies made the economic case Jan. 10 for keeping the U.S. in the international Paris climate deal in a bid to woo support from businessman and President-elect Donald Trump, who has teased pulling the country out of the agreement....

Coal Mining
Can West Virginia's New Governor Save Coal Country?
Jim Justice—6 feet 7 inches, 375 pounds, rumpled in the extreme—has the friendly, shambling demeanor of a high school basketball coach, which he's been for decades. He's also the richest man in West Virginia, with...

Coal Mining
Save Stream Protection, Methane Rules, Rep. Grijalva Urges
The ranking member on the House Natural Resources Committee reached out to lawmakers of both parties Jan. 9 in a bid to hold the line on two recent environmental rules that Republicans have already said they want to claw back....

Congress
Tillerson Must Answer for Trump, Big Oil, Even Putin in Hearing
Rex Tillerson helped seal multibillion-dollar deals from Venezuela to Russia as Exxon Mobil Corp.'s CEO. Now senators weighing his nomination for secretary of state will want to know if he can be as effective working for the U.S.—even...

Emissions Trading
EU Faces More Wrangling on Carbon Reform as Malta Becomes Chair
The European Union is poised for months of political wrangling over a post-2020 overhaul of the region's ailing carbon market after differences on how ambitious the reform should be kept governments from reaching an agreement last...

Endangered Species
Bee Protections May Sting Pesticide Use, Construction Work
A federal decision to list a bumblebee species as endangered could have big impacts on pesticide use and construction activity in the eastern U.S....

Energy
Bill Encouraging Energy Efficiency in Agencies Passes House
A bill that encourages federal agencies to explore ways to use energy-efficiency technologies passed the House under rules that sidestep an actual vote. ...

Energy
China Aims for 15 Percent Energy Intensity Cut by 2020
China's central government announced a national goal to cut energy consumption per unit of gross domestic product by 15 percent by the end of 2020, when compared to 2015 levels....

Energy
NRG, JX Nippon Open $1B Clean Coal Power Project in Texas
U.S. power generator NRG Energy Inc. and Japanese energy producer JX Nippon Oil & Gas Exploration Corp. have finished the world's largest system to capture carbon dioxide produced from burning coal at a power plant....

Energy
Oil States View Taxes Warily in Battling Crude Market Dips
Historic declines in oil prices are sending states dependent on the slippery resource scrambling for ways to make up budget shortfalls in 2017 and beyond....

Energy
Probe of Venezuelan Energy Company in U.S. Nets Two More Guilty Pleas
Two U.S. businessmen pleaded guilty to bribery charges for their roles in trying to win contracts from Petroleos de Venezuela SA, as part of a larger, ongoing U.S. investigation into corruption at the state-owned energy company....

Energy
Sessions Discloses Petrobras Bond Holdings as U.S. Probe Unfolds
Sen. Jeff Sessions (R-Ala.), the nominee to head the Justice Department, declared that he owns thousands of dollars' worth of bonds in the Brazilian state-owned oil company that the department's prosecutors are investigating...

Environmental Reviews
State DOTs Tout Benefits of Assuming Federal NEPA Authority
State transportation agencies are finding substantial time and cost savings by conducting their own environmental reviews, taking over that role from the federal government....

Hazardous Waste
Stakeholders Weigh in on EPA's Paperless Waste Tracker
The Environmental Protection Agency's hazardous waste tracking system has a few more hurdles to clear before it goes paperless....

Oil & Gas
Macri Reaches Accord for $5 Billion Argentine Gas Investment
Argentine President Mauricio Macri's brokered an accord to drive investment in the second-biggest shale oil and gas deposit in the world, presaging a new approach to resuscitating the country's faltering economy....

Oil & Gas

Oil Discoveries Seen Recovering After Crashing to 65-Year Low

The amount of oil discovered last year was the lowest since the 1950s as explorers slashed spending amid the worst downturn in a generation, according to Wood Mackenzie. The good news: It can probably only get better from here....

Regulatory Policy

PODCAST: The Scoop on 2017, Directly From the Newsroom

To give you a sense of what will be coming down the pike in 2017, this week's episode of Parts Per Billion, our biweekly environmental policy podcast, ventures out of typical our recording studio and directly into the Bloomberg BNA newsroom....

Renewable Energy

New York Governor Backs Plan to Build Wind Farm Off Long Island

New York Governor Andrew M. Cuomo is throwing his support behind Deepwater Wind LLC's plan to build a 90-megawatt wind farm off the eastern tip of Long Island....

Superfund

EPA Financial Assurance Rule Written 'in the Dark,' Per Industry

The EPA is about to get some scathing feedback from the mining industry over proposed financial responsibility requirements for potential polluters....

Water Infrastructure

EPA Says Water Loan Program Could Offer $1 Billion in Loans

A new Environmental Protection Agency program that provides loans for water infrastructure upgrades is officially up and running, according to the agency....

Water Pollution

Hill Republicans Aim to Curtail Water Rule Despite Litigation

Axing a rule clarifying the Clean Water Act's scope of jurisdiction remains a priority for congressional committee chairmen overseeing federal water pollution programs, according to interviews by Bloomberg BNA....

Water Pollution

North Dakota Hip Deep in Water Jurisdiction Issue

North Dakota landowners, many of whom eke out a living on land dotted with lakes and ponds called prairie potholes, may have no clear idea what problems await them under the new federal definition of jurisdiction of the Clean Water Act....

Water Pollution

River Water Back to Normal Two Weeks After Gold King Spill: EPA

Water quality in the Animas River returned to pre-event levels within two weeks of the August 2015 Gold King Mine spill triggered by Environmental Protection Agency contractors in southwest Colorado, according to a report from the agency....

Daily Environment Report

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To: Mooney, Charlotte[Mooney.Charlotte@epa.gov]
From: InsideEPA.com
Sent: Tue 1/31/2017 12:15:33 PM
Subject: The Morning Headlines from InsideEPA.com -- January 31, 2017

The critical environmental policy-making news you need as you begin your day

January 31, 2017

Latest News

Trump's Court Prospects Lack EPA Records But Likely To Back Deregulation

The three appellate court judges President Donald Trump is considering selecting as his nominee to the Supreme Court lack records, as judges, on EPA regulations, though each of them is expected to strongly support the administration's deregulatory efforts given their rulings or their records prior to being tapped for the bench.

EPA Leaders Seek To Quell Staff Fears Of Trump Administration Cuts

EPA's career and political leaders are seeking to calm employees' fears of coming staff cuts, budget reductions and other rollbacks at the agency, with recent internal messages saying the Trump administration is following routine procedures for reviewing existing policy at the start of a new term while warning that media reports on some proposals are “just not accurate.”

States Seek To Intervene In Suits Over EPA's ESPS Reconsideration Denials

A coalition of states is seeking to intervene in consolidated litigation brought by a separate coalition of states and industry groups over EPA's denial of administrative petitions to reconsider various aspects of its greenhouse gas standards for existing power plants, litigation that could allow the Trump administration to overturn key parts of the rule should it be upheld.

CARB Chief Says Trump Blocking Vehicle Rules Would 'Destroy' GHG Plan

California's top air regulator says that if the Trump administration or Congress succeeds in blocking the state's ability to enforce its current vehicle greenhouse gas standards or adopt future rules, such a move would “destroy” the state's sweeping regulatory plan to meet its 2030 GHG target.

EPA Highlights Template For Future Superfund Financial Regulations

EPA is highlighting three areas of its proposed first-ever Superfund financial responsibility rule for the hardrock mining sector that could serve as a template for any future financial assurance regulations for other industrial sectors, even as the

rule is at risk of being scrapped by GOP lawmakers.

CSAPR Update Rule's Opponents Outline Issues In New D.C. Circuit Suit

State and industry opponents of EPA's updated Cross-State Air Pollution Rule (CSAPR) for power plant emissions trading are setting out their arguments in litigation against the rule in the U.S. Court of Appeals for the District of Columbia Circuit, amid doubts over whether the Trump EPA will defend the rule.

Trump Signs Order Setting 'One In, Two Out' Mandate For New Regulations

President Donald Trump signed an executive order Jan. 30 directing EPA and other regulatory agencies to eliminate two existing rules for every one they enact, while also setting an overall "budget" for new regulatory costs each year -- the first concrete step in the new administration's plan to slash environmental rules they consider too burdensome.

Daily Feed

Transition: Democrats question DOJ review of Trump orders

Democrats say Trump's executive orders have been issued without Department of Justice review, which would break a policy in place since the Kennedy era and cloud their legality.

Opinion: Scalia's ruling on EPA's mercury rule may doom border wall

Scalia's ruling requiring EPA to assess the costs and benefits of its mercury rule could hamper Trump administration plans to build a wall along the southern border, three law professors say.

Congress: EPW schedules Feb. 1 vote on Pruitt's nomination

The nominee is widely expected to win approval from the committee and head to the floor when he will win support from Republicans and some Democrats.

Litigation: D.C. Circuit sets argument date for RFS suit

The arguments could force the Trump administration to indicate how it plans to address portions of the controversial program.

Our most read: Trump's EPA, one week into a new era

From our most read stories: rules were suspended, a deregulatory plan readied and the agency braced for more changes -- all in the first week.

Ewire: A daily news roundup

EPA rules escape congressional repeal. Plus: EPA lifts temporary grant freeze and more.

Read all the latest EPA news, analysis and documents →

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To: Farber, Glenn[Farber.Glenn@epa.gov]; Nickerson, William[Nickerson.William@epa.gov]
From: Rees, Sarah
Sent: Tue 5/30/2017 4:18:58 PM
Subject: RE: CERCLA 108b Rule

Got it – thanks.

From: Farber, Glenn
Sent: Tuesday, May 30, 2017 11:46 AM
To: Rees, Sarah <rees.sarah@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>
Subject: FW: CERCLA 108b Rule

FYI – OIRA is requesting a briefing on the status of CERCLA 108b (I'm not sure whehther this is just the hardrock mining rule or other industries as well).

From: Mattick, Richard
Sent: Tuesday, May 30, 2017 10:51 AM
To: Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>
Cc: ORCR IO <ORCR_IO@epa.gov>; Hostage, Barbara <Hostage.Barbara@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>; Huff, Mark J <huff.markj@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>; Farber, Glenn <Farber.Glenn@epa.gov>
Subject: FW: CERCLA 108b Rule

Sonya/all,

Please see the attached request from OMB. Please let me know what your preferred time is and a back-up. Rob and Glenn, can you do the same?

Thanks,

Rich

From: Jones, Danielle Y. EOP/OMB [mailto:Danielle_Y_Jones@ Ex. 6 - Personal Privacy email
Sent: Friday, May 26, 2017 11:34 AM
To: Mattick, Richard <Mattick.Richard@epa.gov>
Cc: Cogliano, Gerain <Cogliano.Gerain@epa.gov>
Subject: CERCLA 108b Rule

Hi Rich,

Ex. 5 - Deliberative Process

Thursday, June 1: 10:30-noon and 2:30-6 pm

Tuesday, June 6: 1-2:30

Wednesday, June 7: 1:30-3 and 4-6 pm

Thanks and have a great weekend!

Danielle Y. Jones

Senior Policy Analyst

Office of Management and Budget

Phone: (202) 395-1741 | djones@ Ex. 6 - Personal Privacy email

To: Farber, Glenn[Farber.Glenn@epa.gov]; Nickerson, William[Nickerson.William@epa.gov]; Corrales, Mark[Corrales.Mark@epa.gov]
From: Rees, Sarah
Sent: Wed 6/7/2017 6:16:47 PM
Subject: RE: CERCLA 108b Rule

Thanks Glenn. I have no idea who has been looped into these discussions. I will check in with Samantha/Brittany.

From: Farber, Glenn
Sent: Wednesday, June 07, 2017 1:56 PM
To: Rees, Sarah <rees.sarah@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>; Corrales, Mark <Corrales.Mark@epa.gov>
Subject: RE: CERCLA 108b Rule

Agenda:

Agenda for today's meeting (also attached):

108(b) Hardrock Mining Rulemaking: Update for OMB/OIRA

June 7, 2017

- Activities undertaken during comment period
- Comments received to date
- Preliminary discussions about rulemaking approaches

Ex. 5 - Deliberative Process

- OMB questions, concerns

From: Farber, Glenn
Sent: Wednesday, June 07, 2017 1:55 PM
To: Rees, Sarah <rees.sarah@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>; Corrales, Mark <Corrales.Mark@epa.gov>
Cc: Farber, Glenn <Farber.Glenn@epa.gov>
Subject: RE: CERCLA 108b Rule

I finally received an agenda for this meeting. Clearly, OLEM has put some thought into strategy for moving forward. Do we have any idea whether the Administrator's Office has been part of those thoughts?

From: Rees, Sarah
Sent: Monday, June 05, 2017 3:52 PM
To: Farber, Glenn <Farber.Glenn@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>; Corrales, Mark <Corrales.Mark@epa.gov>
Subject: RE: CERCLA 108b Rule

First I'm hearing of this. Glenn, can you check in with OLEM as to status?

From: Farber, Glenn
Sent: Monday, June 05, 2017 3:44 PM
To: Rees, Sarah <rees.sarah@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>
Cc: Farber, Glenn <Farber.Glenn@epa.gov>
Subject: RE: CERCLA 108b Rule

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

From: Farber, Glenn
Sent: Tuesday, May 30, 2017 11:48 AM
To: Rees, Sarah <rees.sarah@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>
Subject: FW: CERCLA 108b Rule

FYI – OIRA is requesting a briefing on the status of CERCLA 108b (I'm not sure whehther this is just the hardrock mining rule or other industries as well).

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Sent: Tuesday, May 30, 2017 10:51 AM
To: Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>
Cc: ORCR IO <ORCR_IO@epa.gov>; Hostage, Barbara <Hostage.Barbara@epa.gov>; Stachowiak, Robert <Stachowiak.Robert@epa.gov>; Huff, Mark J <huff.markj@epa.gov>; Cogliano, Gerain <Cogliano.Gerain@epa.gov>; Farber, Glenn <Farber.Glenn@epa.gov>
Subject: FW: CERCLA 108b Rule

Sonya/all,

Please see the attached request from OMB. Please let me know what your preferred time is and a back-up. Rob and Glenn, can you do the same?

Thanks,

Rich

From: Jones, Danielle Y. EOP/OMB [mailto:Danielle_Y_Jones@ Ex. 6 - Personal Privacy email
Sent: Friday, May 26, 2017 11:34 AM

To: Mattick, Richard <Mattick.Richard@epa.gov>
Cc: Cogliano, Gerain <Cogliano.Gerain@epa.gov>
Subject: CERCLA 108b Rule

Hi Rich,

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Thanks and have a great weekend!

Danielle Y. Jones

Senior Policy Analyst

Office of Management and Budget

Phone: (202) 395-1741 | djones@ **Ex. 6 - Personal Privacy email**