INSIDE EPA: **Superfund Report** - 06/28/2010

EPA Orders Rare Review Of Radioactive Cleanup Plan At Precedential Site

EPA is ordering parties responsible for radioactive contamination at a Missouri Superfund site to assess new cleanup options even though the Bush EPA already approved a cleanup plan for the site -- a rare move environmentalists hope will spur the agency to avoid setting what they say is a bad precedent for radioactive cleanups under the existing plan.

The cleanup plan approved by the Bush EPA for the West Lake Landfill site in Bridgeton, MO is at least 18 times less stringent than those EPA has implemented in the past at similar urban Superfund sites around the United States. Critics say that if the Obama EPA allows the plan to proceed it would set a dangerous precedent by permitting radioactive waste to remain at urban Superfund sites at levels above EPA's traditional limits, and allowing the wastes to be disposed at urban landfills not regulated by the Nuclear Regulatory Commission (NRC) (/Superfund Report/, Feb. 8).

But a June 4 "Work Plan for Supplemental Feasibility Study" that EPA Region VII ordered the parties responsible for the contamination to prepare outlines two alternative cleanup remedies to the one in the existing plan.

The two alternatives would require "[e]xcavation of radioactive materials with off-site commercial disposal of the excavated materials" or "[e]xcavation of radioactive materials with on-site disposal of the excavated materials in an on-site engineered disposal cell with a liner and cap if a suitable location outside the geomorphic flood plain can be identified." /Relevant documents are available on InsideEPA.com./

Under the work plan, the parties responsible for cleanup at the site will conduct a supplemental feasibility study "consisting of an engineering and cost analysis" of the two new cleanup alternatives. If, after the study is completed, EPA decides to move forward with one of the new alternatives, it will then have to amend the Bush-era record of decision (ROD) calling for the waste to remain in place to reflect that decision, an EPA spokesman says.

The ROD that the Bush EPA approved in May 2008 calls for the radioactive waste to stay in place beneath a "cover of rocks, construction rubble, and clay [with] no liner below to protect the wastes from ground water leaching," according to a resolution the St. Louis City Board of Alderman approved earlier this year urging EPA to change course. Radioactive waste was illegally dumped at the West Lake site during the Cold War less than a mile from a residential development and within the floodplain of the Missouri River.

A 1988 report by the NRC indicates that the average concentration of radioactive radium-226 at the West Lake site is about 90 piccocuries per gram (pCi/g) of soil, 18 times above the 5 pCi/g level that EPA usually

uses as the cut off point for allowing waste to remain at such a Superfund site. The traditional Superfund standard is called an applicable or relevant and appropriate requirement (ARAR), and is the level to which the West Lake site would be cleaned up to if EPA selects one of two new alternative plans it is now ordering the responsible parties to study.

According to a January 11 letter EPA Region VII officials sent to the responsible parties ordering them to prepare the June 11 work plan, the new cleanup alternatives would aim to achieve "complete removal," which "is defined to mean attainment of the risk-based radiological cleanup levels specified in two waste office directives, through which EPA establishes the 5 pCi/g ARAR for radium-226 at Superfund sites.

The West Lake situation is one of several environmentalists are monitoring that they fear could lead to a precedent allowing for radioactive waste to be disposed of in conventional landfills not regulated by the NRC. Other related items activists are monitoring include attempts by parties responsible for radioactive contamination at the Santa Susana Field Laboratory in California to ship the waste to unlicensed disposal facilities and statements made by NRC Chairman Gregory Jaczko in support of deregulating low-level radioactive waste so that it can be disposed at conventional hazardous waste disposal facilities (/Superfund Report/, May 31).

Environmentalists hope the new study requirements could lead to the reversal of the Bush-era cleanup plan. But in a June 16 letter to federal, state and local government officials and lawmakers, activists warn that the "option of leaving the wastes in their current location, with rocks, some clay and construction rubble on top, is still under consideration as initially chosen by the EPA in its" 2008 ROD. The letter was sent to Missouri lawmakers including Sens. Christopher Bond (R) and Claire McCaskill (D) and Reps. Lacy Clay (D), Todd Akin (R) and Russ Carnahan (D).

The activists in the letter reiterate concerns that radioactive waste from the landfill could contaminate drinking water in the region and urge the officials -- which also include Missouri Gov. Jay Nixon (D) and Missouri Department of Natural Resources Director Mark Templeton -- to continue to monitor the situation. "Many residents and government officials of St. Louis City and County have been urging the federal government to extract and remove the West Lake wastes from the Missouri River floodplain for years, before the wastes become irretrievably dispersed by flooding, an earthquake, or other extreme phenomena," the letter says. /-- Douglas P. Guarino/

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INSIDE EPA : Superfund Report --

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[three articles, in reverse chronological order]

(1) Missouri Radiation Cleanup Plan 18 Times Weaker Than EPA Precedent

Inside EPA's Superfund Report -- **2/8/2010** -- by Douglas Guarino

A Bush-era cleanup plan for a radioactive St. Louis area landfill that state and local government officials are urging the Obama administration to reverse is at least 18 times less stringent than those EPA has implemented in the past at similar urban Superfund sites around the United States, an Inside EPA analysis of government documents associated with the sites shows.

Critics warn that the Bush-era cleanup plan, if adopted by the Obama EPA, would set a dangerous precedent not only in terms of permitting radioactive waste to remain at urban Superfund sites at levels above what EPA has traditionally allowed, but also that it could set a precedent allowing such wastes to be disposed at conventional urban landfills not regulated by the Nuclear Regulatory Commission (NRC).

The St. Louis area site at issue, the West Lake Landfill in Bridgeton, MO, is a Superfund site located in the floodplain of the Missouri river where nuclear waste was illegally dumped during the Cold War. State and local government officials have been pressuring the Obama EPA to reverse the controversial Bush-era cleanup plan for the site that environmentalists fear could set a national precedent allowing for the disposal of nuclear waste in conventional urban landfills at levels beyond what the agency's standards typically allow.

EPA's traditional Superfund cleanup standard -- called an applicable or relevant and appropriate requirement (ARAR) -- for sites contaminated with radium-226 dictates that such sites should be cleaned up to the extent that concentrations of radium-226 do not exceed 5 picocuries per gram (pCi/g) of soil above what naturally occurs in the area.

A 1988 report by the NRC indicates that the average radium-226 concentration at the West Lake site is about 90 pCi/g, 18 times above the 5 pCi/g ARAR. In addition, the NRC report says radium-226 activity will increase over time, increasing nine-fold over the next 200 years, or 162 times above the ARAR. "This increase in Ra-226 must be considered in evaluating the long-term hazard posed by this radioactive material," the NRC report says.

And, according to a 1982 NRC report, some samples taken at the West Lake site indicate radium-226 concentrations as high as 21,000 pCi/g, or 4,200 times above the ARAR. Relevant documents are available on InsideEPA.com.

But under a record of decision (ROD) the Bush EPA approved in May 2008, the agency's selected approach to dealing with the site -- located less than a mile from a residential development and about two miles from the Missouri River -- is to leave the radioactive waste in place and construct a "cover of rocks, construction rubble, and clay [with] no liner below to protect the wastes from ground water leaching," according to a resolution the St. Louis City Board of Alderman recently approved urging EPA to change course.

The resolution, which mirrors a similar request St. Louis County officials approved last year, raises concerns that "residents in St. Louis County north of I-70 and most of St. Louis City residents drink

water from the Missouri River, downstream from West Lake," and that the Bush-era plan could cause that water to become contaminated.

The local officials, along with the Missouri Department of Natural Resources and local environmental groups, are urging the Obama EPA to have the waste removed by the Army Corps of Engineers' Formerly Utilized Sites Remedial Action Program, which is already involved in excavating other nuclear waste sites in the St. Louis area.

Mathy Stanislaus, the Obama EPA's assistant administrator for solid waste and emergency response, is reviewing the critics' concerns, according to an EPA spokeswoman.

EPA has previously removed radioactive contamination from urban Superfund sites with radium-226 concentrations comparable to those NRC has found at West Lake. In 2000, EPA elected to redo the cleanup of the Shattuck Superfund site in Denver, a former mining and processing facility within three blocks of a residential area and which exhibited an average radium-226 concentration of 90 pCi/g -- identical to the average concentration at West Lake.

EPA in the 1990s followed through on a previous controversial decision to leave the radioactive contamination at Shattuck in place and cap the site by constructing a monolith out of concrete, fly ash and other materials. But less than five years after construction of the cap was complete, EPA admitted this remedial approach had failed.

At a cost of an additional $20 million, EPA in 2000 removed the Shattuck monolith and cleaned up the radioctive wastes in accordance with the 5 pCi/g ARAR and disposed of them at an NRC-licensed facility for nuclear waste, the amended ROD for the site shows. The Shattuck incident also led to a new EPA policy under which staff at its regional offices must now consult with officials at agency headquarters when deciding how to deal with Superfund sites where there is potential for setting a national precedent regarding radioactive materials (Superfund Report, Aug. 21, 2000).

Should the Obama EPA move forward with the Bush-era plan for West Lake, it would likely amount to a repeat of the Shattuck incident, Missouri activists have warned in letters to the agency.

In addition, sources with environmental groups outside the Missouri area say the execution of the Bush-era cleanup plan for West Lake would set a precedent not only in terms of permitting radioactive waste to remain at urban Superfund sites at levels above what EPA has traditionally allowed, but that it could also set a precedent allowing such wastes to be disposed at conventional urban landfills not regulated by NRC.

Environmentalists have fought against ultimately unsuccessful policy proposals by federal agencies to relax radiation disposal standards in recent years, and moving forward with the Bush-era cleanup plan would have the same affect as approving those proposals, one activist says.

In the past, EPA has applied the 5 pCi/g ARAR for radium-226 when cleaning up similar urban landfills under Superfund. One example is the Kerr-McGee Superfund site in West Chicago, IL, a landfill turned public park located less than a mile from residential areas that EPA decided to clean up to the 5 pCi/g ARAR in 2002. Radium levels at the site were comparable to those at West Lake prior to cleanup and included a median radium concentration of 286 pCi/g and a maximum radium concentration above 15,000 pCi/g, according to the 2002 ROD. -- Douglas P. Guarino

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(2) EPA Facing Fresh Pressure At Key St. Louis-Area Radioactive Landfill Site
Inside EPA's Superfund Report: **12/28/2009** -- by Douglas Guarino

St. Louis government officials and activists are renewing efforts to persuade EPA to reverse a controversial Bush-era cleanup plan that environmentalists fear could set a national precedent allowing the disposal of nuclear waste in conventional landfills at levels beyond what the agency's standards typically allow.

At issue is the West Lake Landfill in Bridgeton, MO, a Superfund site located in the floodplain of the Missouri River where nuclear waste was illegally dumped during the Cold War. Sources with environmental groups outside the Missouri region told /Inside EPA/ in November they were concerned the Bush-era plan, which would allow the nuclear waste to remain in place, could set a national precedent representing an EPA endorsement of disposing of nuclear waste in conventional municipal landfills and of remediation plans that allow radioactive contamination to be left in palace above the levels dictated by the agency's Superfund standards.

Earlier this year, the Missouri Department of Natural Resources, along with local environmental groups, urged EPA Administrator Lisa Jackson and other top agency officials to reconsider the Bush-era plan, suggesting the agency could transfer jurisdiction of the site to the Army Corps of Engineers' Formerly Utilized Sites Remedial Action Program (FUSRAP), which is already involved in excavating other nuclear waste sites in the St. Louis area (/Superfund Report/, Nov. 16).

Now St. Louis City officials and activists are now renewing efforts to persuade EPA to abandon the Bush-era plan and transfer the site to the FUSRAP, with some local elected officials Dec. 8 backing a resolution calling on EPA to make the transfer and a local environmental organization making a similar request in a Dec. 9 letter to EPA waste chief Mathy Stanislaus.

Mirroring a request that St. Louis County officials made in Resolution 5283 earlier this year, the Health and Human Services Committee of the St. Louis City Board of Aldermen Dec. 8 approved Resolution 10, which, if approved by the full board, would call on EPA to make the transfer.

According to the city resolution, a May 2008 record of decision (ROD) the Bush EPA signed for the site dictates "that the radioactive wastes [are] to remain in the landfill, with merely a cover of rocks, construction rubble, and clay, and no liner below to protect the wastes from ground water leaching." The resolution raises concerns that "residents in St. Louis County north of I-70 and most St. Louis City residents drink water from the Missouri River, downstream from West Lake." /Relevant documents are available on InsideEPA.com./

The Great Rivers Environmental Law Center makes a similar request for Corps control in a Dec. 9 letter to Stanislaus on behalf of the Missouri Coalition for the Environment. Citing a Nov. 16 /Inside EPA/ article, the letter says the Bush-era plan "would set bad precedent" and that the "usual practice has been to remove such wastes for transport to a licensed facility."

The Dec. 9 letter references an incident at the Shattuck Superfund Site in Denver where EPA in 1997 decided to leave similar radioactive contamination in place and remediate it by mixing it with concrete and fly ash, only to admit three years later the remedy failed and have the Corps remove the material. The Shattuck incident led to the creation of a new EPA policy under which staff at its regional offices must now consult with officials at agency headquarters when deciding how to deal with Superfund sites

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where there is potential for setting a national precedent regarding radioactive materials (Superfund Report, Aug. 21, 2000).

Sources with environmental groups outside the Missouri area -- who have long been concerned with efforts to allow for the disposal of nuclear waste in conventional landfills -- say the execution of the Bush-era cleanup plan for the West Lake site would be precedent setting not only in terms of permitting such disposal at a landfill but also by making the decision to not remove radioactive materials at a Superfund site even though they are present at concentrations above what the agency normally allows.

For example, EPA in a 2000 remedial investigation report found concentrations of radium-226 at the West Lake site at levels as high of 906 picocuries per gram (pCi), which is more than 180 times greater than the agency standard of 5 pCi, an activist from outside the Missouri region noted recently. "Those concentrations are very high," the activist said.

An EPA source said recently the agency "is not in a position to respond to those" concerns "at this point," noting that with the change in administration since the ROD's approval, newly appointed EPA officials must be briefed on the plan. The agency has an agreement with the parties responsible for the contamination to execute the design phase of the cleanup -- the step that follows the approval of a ROD -- but "doesn't have a schedule at this point" for when that phase will actually begin, the EPA source said.

A spokesman for Stanislaus could not be reached for comment. -- Douglas P. Guarino

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(3) Cleanup Of Nuclear Waste In Landfill Site On Hold Amid Fears of Precedent
Inside EPA's Superfund Report: **11/16/2009**

The remediation of a St. Louis-area Superfund site is on hold while EPA staff brief Obama political appointees on the details of a controversial Bush-era cleanup plan that environmentalists fear could set a national precedent allowing the disposal of nuclear waste in conventional landfills at levels beyond what the agency's standards typically allow.

Local environmental groups, along with the Missouri Department of Natural Resources (DNR), are urging EPA Administrator Lisa Jackson and other top agency officials to reconsider the Bush-era plan, which would allow illegally dumped nuclear waste from the Cold War era to remain in the West Lake Landfill in Bridgeton, MO, located in the floodplain of the Missouri River.

Additionally, sources with environmental groups outside the Missouri area are concerned the cleanup plan could set a national precedent, saying it would represent an EPA endorsement of not only the disposal of nuclear waste in conventional municipal landfills, but also of remediation plans that allow radioactive contamination to be left in place above the levels dictated by the agency's Superfund standards.

Under a record of decision (ROD) the Bush EPA approved in May 2008, the agency's selected remedy is to construct a cap of "rocks, construction rubble and clay on top of the radioactive wastes," which include "uranium, thorium, and other radioactive elements," the Great Rivers Environmental Law Center notes in an April 2 letter it sent to Jackson on behalf of the Missouri Coalition for the Environment. "EPA's remedy for West Lake is to treat it as a municipal waste landfill under the Superfund law," the activists note. "In addition to the usual cover for landfills, EPA has borrowed some standards from the Uranium Mill Tailings Radiation Control Act (UMTRCA) and proposed 'a hybridized cover system incorporating a rock or concrete rubble layer to restrict biointrusion and erosion into the underlying

landfilled materials.' "

However, "[t]his hybrid remedy is inadequate," the activists argue, because "[n]o liner or other physical structure is proposed that would prevent radionuclides from migrating into the groundwater." The activists believe "that these highly radioactive wastes, if abandoned in the floodplain, could end up in drinking water of untold numbers of St. Louisans who depend on the Missouri River for their drinking water, as well as people downstream who draw their drinking water from the Mississippi after the Missouri drains into it."

The activists urge Jackson to have the radioactive waste excavated and sent to a landfill specifically licensed to dispose nuclear waste, noting the U.S. Army Corps of Engineers, through its Formerly Utilized Sites Remedial Action Program, is already in the process of doing such excavations at several other St. Louis-area sites contaminated with similar radioactive materials.

The Missouri DNR urges similar action in a May 4 letter to acting EPA Region VII Administrator William Rice, suggesting EPA and the Corps could use federal stimulus funds to do the excavation. "This would drastically reduce the length of any long-term operation and maintenance liability associated with these radioactive wastes in metropolitan St. Louis, would be more widely supported by the public, and would also fit the goal of job creation and environmental protection associated with nationwide federal stimulus spending," DNR says. /Relevant documents are available on InsideEPA.com./

EPA, however, "is not in a position to respond to those letters at this point," an agency source says, noting, with the change in administration since the ROD's approval, newly appointed EPA officials must be briefed on the plan. The agency has an agreement with the parties responsible for the contamination to execute the design phase of the cleanup -- the step that follows the approval of a ROD -- but "doesn't have a schedule at this point" for when that phase will actually begin, the EPA source says.

Should EPA move forward with the Bush-era plan, it would likely amount to a repeat of an incident at the Shattuck Superfund site in Denver where EPA in 1997 went through with a decision "to remediate radioactively contaminated soil by mixing it with concrete, fly ash and other materials" rather than by cleaning it up, only to three years later admit the remedy failed and have the Corps remove the material, the Missouri activists argue in their letter to Jackson. The Shattuck incident led to the creation of a new EPA policy under which staff at its regional offices must now consult with officials at agency headquarters when deciding how to deal with Superfund sites where there is potential for setting a national precedent regarding radioactive materials (/Superfund Report/, Aug. 21, 2000).

Sources with environmental groups outside the Missouri area -- who have long been concerned with efforts to allow for the disposal of nuclear waste in conventional landfills -- say the execution of the Bush-era cleanup plan for the West Lake site would be precedent setting not only in terms of permitting such disposal at a landfill but also by making the decision to not remove radioactive materials at a Superfund site even though they are present at concentrations above what the agency normally allows.

For example, EPA in a 2000 remedial investigation report found concentrations of radium-226 at the site at levels as high of 906 picocuries per gram (pCi), which is more than 180 times greater than the agency standard of 5 pCi, an activist from outside Missouri notes.

"Those concentrations are very high," the activist says. In comparison, at the Santa Susana Field Laboratory in California, where environmentalists are also fighting against the proposed disposal of radioactive materials in conventional landfills, the Boeing Company and the National Aeronautics and Space Administration intend to ship soil contaminated with up to 0.659 pCi of cesium-137 to a conventional landfill, the activist notes. -- Douglas P. Guarino ##

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