ASHLAND.

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February 27, 2014

Mr. Jonathan Gorin
Remedial Project Manager
United States Environmental Protection Agency, Region II
290 Broadway
19th Floor
New York, New York 10007-1866

Subject: LCP Chemicals, Inc. Superfund Site (USEPA ID# NJD079303020)
Comments on the Impact Environmental Letter dated October 20, 2013, "RE: Final Feasibility Study, LCP Chemicals, Inc., Superfund Site, Linden, New Jersey"

Dear Mr. Gorin:

Impact Environmental provided comments to the EPA on the environmental investigations and feasibility study for the LCP Chemicals Inc. by letter dated October 20, 2013, titled "RE: Final Feasibility Study, LCP Chemicals, Inc., Superfund Site, Linden, New Jersey". Provided below are IES' responses to several comments in the Impact Environmental letter.

Comment 1: Change Site Name

*The site name under Superfund and on the CERCLIS is the "LCP Chemicals, Inc., Superfund Site, Linden, NJ". Comment 1 is a recommendation to change the site name to the "**Ashland** LCP Site, Linden, NJ". This change seems appropriate for framing corporate responsibilities and for general accuracy. There have been many instances in which the name of a Superfund site was changed to reflect changing conditions as a result of public feedback*

Response

There is no basis given to support changing the site name. In circumstances where EPA has done so in the past, it was done to avoid confusion about a site, not because of a corporate transaction. The site has been known as the LCP site for more than 20 years; any change in site name now would only create confusion. Moreover, if any name change is appropriate it would be a change to call the site the Cherokee site, to reflect the ownership interest claimed by Cherokee, not adding "Ashland" to the site name since Ashland never had any ownership or other direct interest in the site.

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Comment 2: Acceptance of the Completeness of the Remedial Investigation

The Remedial Investigation has been completed and accepted by the Agency. Comment 2 is a demand that additional activities are performed to safeguard the health of construction/demolition crews that will work on the property as my client's construction contractors; future land tenants' employees, the home owners of Linden and the environment at large. This demand is further expanded upon in the following outlined points.

> *1. At the public hearing and within all of the investigative documents it was established that free, "elemental", mercury was present in the surface soils of the Ashland site. It was indicated that this mercury could be readily observed by visual survey methods. Maps contained within the documents are clear on this matter. Inasmuch as Super-Storm Sandy impacted the site after the mercury in the soil was mapped, and given that no follow-up inspection has been performed, I believe that it is prudent for Ashland to perform this survey again to gauge the impacts of the storm on this surface that is/was laden with elemental mercury. Moreover, as verbalized more than a dozen times at the public hearing, isn't there a responsibility for the PRP to ascertain if mercury concentrations were transported to surrounding residential areas due to the storm- related flooding? At the hearing, an Agency staff member, indicated that similar testing was done by the Agency at and around the areas of the Gowanus Canal in New York, where the staff member lived. My research shows that mercury is much more toxic than any contaminants currently known to exist in the Gowanus Canal.*

Response:

It is unlikely that flooding during Hurricane *Sandy* caused remobilization of site contaminants, including mercury, to other off-site, inland locations. The LCP site and other nearby industrial properties have been flooded on multiple occasions by extreme weather events prior to and during the course of the Remedial Investigation (RI), such as Hurricane *Floyd* (1999). Furthermore, the RI data demonstrate (e.g., off-site ditch sampling) that site contaminants in shallow soils were not distributed any significant distance off site in an inland direction, even after the prior flooding known to have occurred. Conditions during *Sandy* are not likely to have been sufficiently different than prior flooding events with respect to floodwater velocities such that it is unlikely that *Sandy* flooding would have caused additional off-site contaminant transport from the site in an inland direction. As such, IES does not believe that there is a need for additional on-site or off-site investigation associated with the LCP site.

Of note, the USEPA had described the sampling related to the Gowanus Canal not for the purpose of indicating that sampling is necessary. Rather, the Agency indicated that redistribution of contaminants was not evidenced by the sampling performed there, which further supports the site-specific data at the LCP Site.

(Comment 2 Continued)

Is there a reason why the logic of community-impact testing pertains only to affluent New York City communities and not to the community of Linden - is there an environmental justice issue associated with this site? In recognition of this, I demand the following:

> *a. Voluntary testing of Linden residents yard soils by a New Jersey Certified (ELAP) Environmental Testing Laboratory for total mercury. I have performed the necessary research and have identified a laboratory that would be willing to test samples, using USEPA test method 6010, at the reduced cost of $35 per sample, inclusive of glassware. While sampling would be performed by the residents, we are prepared to provide a "how-to" website to help ensure a high degree of sampling precision and quality control. The samples could be picked up weekly for a month (on a Friday) at the community recreation center. Screening could also be performed using a hand-held XRF meter that can be rented for several days at a cost that is less than one-thousand dollars.*
>
> *b. The Agency help Impact Environmental coordinate the Edison Wetlands Association and other local community groups interested in the LCP/Ashland site, to provide public notice of the aforementioned volunteer testing program. This can be done in both print and internet media spots.*
>
> *c. The Agency help Impact coordinate local community groups, and offer assistance toward obtaining a Technical Assistance Grant (TAG) so that we can interpret and help the community understand technical information about the Ashland site.*
>
> *d. The Agency should demand that a new survey of the Ashland site be performed to understand what, if any, changes occurred to impact the concentration and distribution of elemental mercury as a result of Super-Storm Sandy. As this is somewhat a visual-driven survey, this is a minor expense and inconvenience for the PRP.*

Response:

Nothing precludes residents from sampling their own properties at any time they desire to do so. However, as noted there is no evidence that site contamination has migrated off site to any residential area of Linden. It seems surprising that Cherokee/Impact would suggest that it could have.
From and Environmental Justice standpoint, the best thing to happen would be to issue the Record of Decision so that the cleanup can move forward without further unnecessary investigation.

Total mercury testing cannot identify the mercury species and; therefore, cannot be used to assess the potential sources of mercury if detected on upland properties. Mercury, as defined as total mercury, is ubiquitous in the Arthur Kill basin and the mere presence of total mercury on upland properties would not be an indication that the potential source is the LCP Site, especially given the investigations which have been performed at the Site, and the data which indicates that elemental mercury has not been dispersed from the Site, as described above. .

(Comment 2 continued)

2. I believe that both Ashland and ISP have a history of acting as both PRP and cleanup contractor/consultants. My belief stems from the fact that they have staff environmental scientists and chemists, and the name "ISP Environmental Services, Inc". Some current Ashland executives were previously executives at ISP. This appears to represent a conflict of interests, which creates ethical and perception concerns, as the PRP's staff have been integral in guiding investigation and cleanup activities. How can the area residents and Cherokee trust that this process has not been compromised for the purpose of reducing liabilities and on-site remedial costs for ISP to facilitate a sale to Ashland, or by Ashland to mitigate the cleanup and closure costs? In recognition of this, I demand the following:

a. Please provide me with information on third-party quality control testing (split samples, sample duplicates, trip blanks, etc.) that the Agency has had performed to insure that design goals were executed and reported with the integrity that is paramount to the protection of residents of Linden, Cherokee and the environment.

b. Please provide information on the number and location of Superfund sites that ISP and Ashland, by extension, are named PRPs. If possible, provide comment on who the contractors-of-choice were for these projects.

Response:

IES voluntarily entered into a consent order with USEPA to provide for the completion of a Remedial Investigation and Feasibility Study at the LCP site. This consent order sets forth IES's obligations and provided for extensive, ongoing and active USEPA oversight. In fact all of IES's work was subject to USEPA review and approval. It is common for USEPA to enter into consent orders that provide for responsible parties to conduct remedial investigations and other remedial work at sites. The consent order and plans developed pursuant to the consent order which are public documents provide the requested information.

As to Quality Control, the sampling program that was implemented during the RI was performed in accordance with detailed plans that were prepared with significant input and ultimate approval from the USEPA and the NJDEP.

Independent, third party quality control/quality assurance (QA/QC) procedures were important components of the RI as described in the USEPA-approved RI work plan documents, including the Quality Assurance Project Plan (QAPP). These methods are described in detail in the RI report and the supporting document referenced in the RI report and included the following:

- The field sampling work was subject to technical oversight by technical experts under contract to the USEPA.
- The sampling program included a prescribed number of field QA/QC samples including blind duplicates, equipment (field) blank samples, trip blank samples, and matrix blank/matrix blank duplicate (MS/MSD) samples.
- The laboratory methods utilize highly developed calibration and internal validation methods as specified in the USEPA-approved methods.
- Each of the sample results was externally validated by an independent data validator, as reported in the RI report.

- Split samples were collected and analyzed independently by the USEPA oversight contractor.

Comment 3: Acceptance of the Completeness of the Feasibility Study

The Feasibility Study has been completed and submitted to the Agency. Comment 3 is a demand that additional activities be performed to safeguard the health of construction/demolition crews that will work on the property as my client's contractors; future land tenants' employees, the homeowners of Linden and the environment at large. This demand is further expanded upon in the following outlined points.

> *1. Paramount to the study and the absolute direction of the logic tree used in its remedy selection is that mercury contaminated soil that is hazardous has no off-site legal disposal option. This fact that guides the remedy decision is erroneous. My staff has identified several disposal options for mercury hazardous waste. Many of these options are economical and make excavation of the impacted areas a more economically viable option. In recognition of this, I demand the following:*
>
> > *a. Additional time is necessary to re-evaluate this option. Revisions are necessary to the Feasibility Study document, and the logic associated with remedy selection to expand on this excluded information.*

Response:

As researched during preparation of the Feasibility Study (FS), and as confirmed by the USEPA during the public meeting on August 28, 2013, a practicable disposal facility for the principal threat waste (PTW) at the LCP Site has not been identified. And, even if one were, such as the USEcology/Stablex facility in Canada, the ultimate management of the mercury would still be via containment; perhaps outside of the US where less stringent regulations would apply (i.e., the land disposal restrictions do not apply in Canada), and the containment remedy (Alternative No. 3) would still be necessary because of the other contaminants associated with the anthropogenic fill (for which the presumptive remedy is containment) and past Site operations.

As explained in the FS, the issue regarding management of the PTW is more complicated than suggested above as simply a disposal outlet for "mercury hazardous waste". The PTW would be subject to RCRA land disposal restrictions (LDRs). LDRs prohibit land disposal of hazardous wastes and contaminated soils/media that contain mercury, as well as other compounds, unless the media is treated to meet specific standards (i.e., Universal Treatment Standards (UTS) found at 40 CFR 268.48) or criteria associated with the regulatory variances associated with the LDR standards. The EPA has established different sets of LDR standards for mercury containing hazardous media, each requiring a specific treatment standard. The LDRs categorize mercury containing wastes into low mercury wastes, high mercury wastes, or elemental mercury waste. These mercury waste types, along with their associated land disposal restrictions, are as follows:

Type of Waste	Land Disposal Restrictions (Mercury UTS)
Low Mercury Waste (< 260 mg/kg total Hg)	If Retorted, must meet 0.2 mg/L TCLP Other treatment technology, must meet 0.025 mg/L TCLP
High Mercury Waste (> 260 mg/kg total Hg)	Cannot be disposed at landfill in US, unless LDR exemption or variance is obtained. Required to be roasted or retorted. Residuals must meet 0.2 mg/L TCLP
Elemental Mercury Waste (w/ radioactive contamination)	Required to be treated by amalgamation

Contaminated soil, as stated under 40 CFR 268.49, must be treated according to either an applicable UTS, as described above, or treated in some manner to achieve the following alternative contaminated soil treatment standard (AST) prior to land disposal:

Contaminant Type	Alternative Contaminated Soil Treatment Standard
Non-Metals	Treatment must achieve 90 percent reduction in total constituent concentration, except as noted below.
Metals	Treatment must achieve 90 percent reduction in constituent concentration measured in leachate from the treated media, except as noted below. -or- Treatment must achieve 90 percent reduction in total constituent concentration (for metal removal technologies), except as noted below.
Non-Metals and Metals	When treatment to 90 percent reduction standard would result in a concentration below 10 times the UTS (i.e., 0.25 mg/L TCLP for non-retorted waste), further treatment for reduction in concentration is not required.

Regulations found in 40 CFR 268.44 provide for a generator or treater of hazardous waste to apply for a variance from the treatment standards. This site-specific variance may be applicable if it is not physically possible to treat a waste to the level specified in the treatment standard, or by the method specified as the treatment standard for the particular hazardous waste. To apply for a variance from the LDR treatment standards, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified levels or by the specified methods.

Some portion of the soils containing visible elemental mercury, potentially 50% or more, could be classified as hazardous based on characteristic because of mercury concentrations in the TCLP extract (two out of four samples tested per the TCLP method failed for mercury). As such, some waste soil would have to be managed in compliance with the above regulations. This remedy could potentially involve 9,000 cubic yards or more of hazardous waste which would have to be retorted to comply with the LDRs. Such retort capacity does not exist in the US or elsewhere outside of the US. Typical retort capacity in the US is limited to drum or small truckload quantities. This would mean that to manage the material in the US would require a variance from the treatment standards. However, the rationale for the variance would be treatment capacity not the nature of the waste or treatment process. And, in any

event, if a variance were pursued, the alternative treatment technique would be stabilization (or S/S, however, there are issues of mercury mobilization with this technology which indicates it should not be considered further).

Alternatively, some other disposal facility could be identified that would not be subject to the relevant RCRA regulations, or in particular the LDRs. A survey of potentially applicable disposal facilities which could accept soil containing visible elemental mercury indicated that only two disposal providers were a possibility (Emelle and USEcology/Stablex; see further discussion below) and of these, only one was identified that is known to be able to accept waste of this type. Most disposal facilities would not be able to accept soils in which visible elemental mercury was present. The facilities which could potentially accept visible elemental mercury include the Chemical Waste Management, Inc. landfill in Emelle, Alabama, and the USEcology facilities in Nevada and Utah. Both have indicated the waste could potentially be accepted under the alternative treatment standards (40CFR268.49). Because this alternative standard requires a treatment efficiency of 90% or to 10 times the UTS, whichever is less stringent, visible elemental mercury would not be precluded from acceptance, nor would there be an exclusion based on concentration other than the treatment requirement. However, the 90% or 10xUTS has to be demonstrated. The process used to meet these criteria is solidification/stabilization. However, solidification/stabilization has not been demonstrated on visible elemental mercury, and depending on the mix design, could increase mobility (e.g., pH dependence). Under such circumstances, visible elemental mercury impacted soils would not be accepted for disposal. Therefore, the ability for these facilities to accept the soil containing visible elemental mercury is unproven.

This would leave only one other identified disposal facility, the USEcology/Stablex facility located in Quebec, Canada. The process used at the USEcology/Stablex facility for the treatment of visible elemental mercury contaminated media involves the use of a proprietary S/S technology. While the USEcology/Stablex facility has been used for disposal of mercury contaminated soils similar to those found at the LCP Site, the facility has never accepted materials at the scale and with the potential quantities of mercury that would be involved at the LCP Site, and would not/could not confirm acceptance. USEcology/Stablex has indicated that health and safety, production capacity, pre-processing, and screening to a maximum particle size of one to two inches are issues that would need to be addressed prior to confirming acceptance.

(Comment 3 continued)

2. *It was identified that the transport of mercury waste could lead to community impacts during transport. If the material was transported in sealed drums this exposure potential could be entirely abated. This procedure has been utilized for decades for the removal of excavated soils in many Superfund Sites. In recognition of this, I demand the following:*

   a. *Additional time is necessary to re-evaluate this remedial option. Revisions are necessary to the Feasibility Study document, and the logic associated with remedy selection to expand on this excluded information.*

Response:

The FS would have been remiss had it not identified the potential adverse impacts associated with off-site transport of contaminated materials. The USEPA *Guidance for Conducting Remedial Investigations and Feasibility Studies* under the definition of short-term effectiveness states "...addresses any risk that results from implementation of the proposed remedial action, such as...transportation of hazardous materials...." To suggest that if the material were drummed the issue would be "entirely abated" is inappropriate. Regardless of whether the material is drummed or not, there are risks associated with transportation of wastes. For instance, in a vehicle accident, a drum would not necessarily maintain the security of the wastes.

As a matter of practicality, it would also not be reasonable to manage up to 24,000 cubic yards of PTW in drums. Each 55 gallon drum would contain approximately 1/3 of a cubic yard, meaning that some 75,000 drums would be necessary. This volume of material is simply not handled in drums.

IES, therefore, does not agree that additional time is needed for re-evaluation. The FS thoroughly evaluated the alternatives and provided the information that was needed for the USEPA to select a remedy.

(Comment 3 continued)

> *b. PRP should be prompted to identify what soils would need to be removed for acute exposure concerns and the removal should be performed immediately as an Interim Remedial Measure. This is particularly necessary as it is clear that the process of identifying and performing appropriate remedial measures is going to require additional delay. Failure to act could result in the dispersion of these contaminants from other acts of god or unintended incidents that could lead to dispersion of these toxic contaminants into the surrounding residences.*

Response:

As noted in the response to comment 2, the investigations performed during the various phases of the RI have shown that contaminants have not dispersed from the Site any significant distance, and there is no reason to believe that such dispersion would occur in the future. In addition, IES performed routine, quarterly building observation and air monitoring at the Site to assess the condition of the Site buildings and the potential for mercury vapor emissions. The results of this air monitoring document that concentrations of mercury in air at the Site are within the limits established for the monitoring program. There is no data that would indicate the need for an interim remedial measure.

(Comment 3 continued)

> *3. It was identified that both the USEPA and the PRP contacted Brookhaven National Laboratory (BNL) for remedy selection. I contacted BNL and they have indicated that contact with the Agency and the PRP on this site was minimal, at best. BNL staff was not officially engaged to work on the project. Comment provided by BNL indicated that the*

decision to dismiss Solidification/Stabilization was "flawed". No follow-up was performed by the Agency or the PRP since this "flawed" assessment was rendered by BNL. Moreover, since 2010, nobody performed any follow-up with BNL. BNL has indicated that they have successfully optimized its patented Sulfur Polymer Stabilization/Solidification Process (SPSS) since 2010 (see attached draft white paper prepared by Dr. P. Kalb of BNL). The SPSS process returned excellent results in the Department of Energy Y-12 site Cleanup. The use of this technology for in- situ applications needs a serious re-evaluation. In recognition of this, I request the following:

a. Additional time is necessary to re-evaluate this remedial option. Revisions are necessary to the Feasibility Study document, and the logic associated with remedy selection to expand on this excluded information.

b. BNL needs to be engaged for its true opinion on how this site would be best remedied using its patented techniques. It is my opinion that the Remedial Investigation/Feasibility study is suggesting methods that will infringe upon some of BNL's Patents.

Response:

BNL was contacted specifically for information regarding the SPSS technology and to confirm whether it was commercially available technology. BNL was not asked, nor was there reason to do so, to participate in the remedy selection process. At the time of the contact, BNL confirmed that SPSS was not a commercially available technology, and Dr. Kalb was interested in the possibility of commercializing the technology via the LCP project. The BNL white paper provided with Cherokee's comments continues to support the lack of commercial availability of this technology. BNL's white paper describes a process whereby treatability studies would be performed first followed by assistance to "...design, install, test and operate a commercial on-site SPSS treatment system." In its white paper, BNL also offered its patented ISMS technology as an option and specifically stated that "This process has not been demonstrated at pilot-scale...." These technologies, therefore, were not considered further in the FS because they are not commercially available. By contrast, the stabilization process would use conventional mixing technology. Treatability/pilot studies would be performed, as described in the USEPA's Proposed Plan, for comparison to "clearly defined treatment goals" (i.e., not to determine that the technology works at the commercial scale).

Of note, BNL's papers regarding the SPSS technology include statements regarding conventional S/S technology such as "Conventional techniques such as hydraulic cement are not effective in containing mercury or mercury salts...." (Kalb et al, 1998). This is inconsistent with the characterization that eliminating S/S was a "flawed" decision. To further clarify, SPSS is not an S/S technology; it is stabilization followed by microencapsulation.

Of note, the Y-12 *Strategic Plan for Mercury Remediation* (March 2013) describes on-site disposal "As the most cost effective measure available..." and through which "...the majority of the low-level waste (LLW) and mixed (LLW and hazardous) waste resulting from future demolition and remediation activities will be dispositioned...." Further, this strategic plan indicates only that SPSS has been successfully piloted and not yet applied full scale.

Finally, IES does not perceive any issues of patent infringement as suggested in the above comment. However, it would be normal practice to confirm this during the course of the design, and deal with patent issues during implementation, if necessary.

(Comment 3 continued)

4. It seems that the toxicity of mercury is being lost somewhere in the toxicity assessments. While mercury is not carcinogenic, it is an acute toxin. Contact with mercury has immediate and irreversible impacts upon various human organs, in particular the central nervous system. This makes it much more dangerous than other volatile contaminants such as benzene; a mere carcinogen. People are exposed to benzene routinely during fill ups, but several laws exist to eliminate any potential for mercury exposure. The entire body of risk assessment work contained within the Feasibility Study appears to be is flawed due to this failure of simple risk-assessment principle. In recognition of this, I demand the following:

a. The risk assessment needs to be re-written with input from medical professionals who can offer alternate risk exposure assessment information for mercury. This includes staff from the Union County and NJ State Health Departments.

Response:

The risk assessment clearly indicates that mercury toxicity is considered. It was identified as a COPC for both the human health and ecological risk assessments. In both documents, where visible elemental mercury was observed risks were automatically assumed to be above the risk thresholds even though the risks could not be quantified because the presence of "free" elemental mercury would not allow for quantification of exposure point concentrations. The human health risk assessment states "Mercury in soil and sediment is the primary environmental contaminant at the Site." To suggest that mercury was not appropriately considered is erroneous.

(Comment 3 continued)

b. This site, in its current state, appears to represent a ***severe health hazard****. Greater work needs to be performed to insure that mercury dispersion is not occurring daily due to wind, water, wildlife, trespassers, etc. This site requires a 24 hour guard and temporary covering with an impermeable material (HDPE). If stockpiles of soil from residential tank pulls are required to be temporarily covered by New Jersey DEP, then why wouldn't a highly toxic surface require an impermeable cover?* ***This may represent a health emergency*** *and requires immediate emergency response.*

c. Public notice must be made to identify the danger this site represents. At the public comment meeting two separate participants from the community indicated that they not only walk the area, but partake in recreation hunting and fishing on the areas adjacent to or adjoining the adjacent properties. Why is this site not being treated for the clear and present danger it represents? Why are signs not posted warning people as they are at other Agency administered cleanup sites?

Response:

As noted previously, IES has routinely performed air monitoring, and the results of this air monitoring document that concentrations of mercury in air at the Site are within the limits established for the monitoring program. The RI has also documented that contaminants have not been significantly distributed overland from the Site. The Site is also secured with a fence and a sign at the entrance road, and is not readily accessible via vehicle or on foot since it is landlocked. There is nothing in the site data that suggests the Site represents an imminent threat to human health or the environment.

(Comment 3 continued)

> *d. The selected remedy does little, if anything to treat groundwater impacted by mercury from entering the Arthur Kill. In 1990, the NJ Conservation Foundation and the NJ Audubon Society conducted an inventory of the river and stream corridor, identifying nearly 200 bird species including about 90 species that breed in the watershed.*

Response:

The RI has demonstrated that the groundwater at the Site is relatively unimpacted by mercury as a result of mercury sources on the LCP Site. This is due to the relative immobility of the forms of mercury found on the LCP Site. Mercury-impacted bedrock groundwater has been demonstrated to be entering the Site from the adjacent GAF site.

Notwithstanding the aforementioned mercury issue, the selected remedy directly addresses groundwater. The selected remedy contains a barrier wall and groundwater collection system in the shallow, overburden water bearing zone. The collected groundwater will be treated and discharged in accordance with an appropriate NJPDES permit equivalent.

The bedrock groundwater, as described in both the RI and the FS, underlying the western portion of the Site contains concentrations of VOCs, SVOCs and metals (including dissolved mercury) attributable to the adjacent LPH site. The currently operating groundwater extraction and treatment system on the LPH site is capturing groundwater within this area. Bedrock groundwater closest to the natural discharge point represented by the Arthur Kill does not exceed human health or aquatic criteria for mercury.

(Comment 3 continued)

> *5. The Feasibility Study fails to identify the impacts that leaving such a high concentration lode of mercury contaminated soil will have on the redevelopment of the Ashland/LCP site. The current intended land-use for the site is commercial/industrial. Cherokee has identified interest in constructing warehousing with 10% office space. The Feasibility Study needs to address if, and how, the building can be constructed without poisoning the construction workers, and future employees. In recognition of this, I demand the following:*

a. The study must propose a remedy to prevent impacts of the mercury on building occupants. This should include real-time monitoring instruments to detect the efficacy of the remedy ad-infanitum [sic].

b. The study must propose a remedy that will allow construction workers to work on the Ashland site without being exposed to mercury during activities such as excavation for drainage, utility and foundation installation, structural pile installation (down to 90') and surface landscaping/hardscaping.

c. The remedy must propose a long term Construction Health and Safety Plan for the Ashland site, and attach the plan to the title as part of the Institutional Controls.

d. A fund must be established that insures that monies will be available from the PRP to address any and all escalations in construction costs associated with the toxicity of the Ashland site.

6. The Feasibility Study fails to identify the impacts that leaving such a high concentration lode of mercury contaminated soil will have on the redevelopment of the Ashland site. The current intended land-use for the site is commercial industrial. Cherokee has identified interest in constructing a warehouse with a minimum of 10% offices. The Feasibility Study needs to address if, and how, the building can be constructed, and after construction, how it can be sustainably operated. In recognition of this, I demand the following:

a. The closure plan must identify how the remedy selection will couple with the intended redevelopment of the Ashland/LCP site by Cherokee. This must include a clear plan for soil stabilization for parking areas. Currently, the plan as proposed will render the site ***unbuildable*** *due to the heavily disturbed condition that it will leave the soils. Will the soils be able to be compacted enough to support roads and driveways? What about footings, basements, etc.?*

b. The study must include a clear plan for providing drainage for storm water and roof precipitation runoff. The remedy selection does not allow any means for direction runoff to the water table. Where will the runoff go? Will it be contained for Ashland to have removed on a weekly basis, ad-infinitum? The remedy selection, as it stands currently, will not support any other option.

c. The study must propose a long term Operations and Maintenance Plan for the Ashland site, and attach the plan to the title as part of the Institutional Controls.

d. A fund must be established that insures that monies will be available from the PRP to effect the necessary secondary or tertiary remediation when other unanticipated impacts are encountered at the LCP/Ashland site.

Response:

Taking the above in sequence:

5.a. As noted in the FS, because any of the remedies would leave contaminated materials in place (i.e., anthropogenic fill) a deed notice would be placed at the Site. A deed notice is put into place as a part of the remedy implementation. If a building were to be constructed on the Site, it would have to comply with the deed restrictions for the remedy, one of which would be vapor mitigation. Vapor mitigation below a building is conventional technology that is common in brownfield redevelopment.

5.b. The Site contains anthropogenic fill, which in turn contains various contaminants. Construction workers at the Site would have to comply with the deed restrictions which would include a soil management plan, and would have to operate under a health and safety plan. This is, again, conventional for brownfield sites, and would be necessary regardless of whether mercury were present or not.

5.c. Health and safety plans for future construction or Site use are not a part of the FS process. Such requirements would be a part of a future site management plan and the deed notice for the Site.

5.d. The only funding that can be required from any RP are those required under CERCLA , which do not include increased costs of development.

6.a. Because the treated soil will contain the existing fill materials plus some proportion of sulfur, there is no reason to believe that the material could not be compacted to meet some future Site use such as roadways or parking, if the Site were to be redeveloped. However, the PTW area represents only approximately two acres of the approximately 26 acre parcel, and so would not restrict site development to any substantial degree, if such development were to take place. It is also important to note that the Site contains anthropogenic fill of variable character, and regardless of the remediation of the PTW area, the variability of the fill would have to be taken into consideration for site redevelopment, if it were to occur. A geotechnical evaluation would be necessary for a foundation design because of the presence of the anthropogenic fill, and not because of the remediation of the small area of PTW.

6.b. Stormwater runoff would be separated from the contaminated material by the cap, and thus would be clean. It would be managed in conventional means of overland flow and drainage controls as needed. The actual stormwater control mechanisms and design are not major considerations in the remedy selection process, as the technology for drainage controls is conventional and readily implementable.

6.c. An operations and maintenance plan is prepared as a part of the remedy implementation process, not as a part of an FS.

6.d. The only funding that can be required from any RP are for costs recoverable under CERCLA. This does not include costs of development. CERCLA contains no provision for establishment of a fund like that requested.

Sincerely,

John Hoffman
Ashland Inc.
Environmental Health Safety & Product Regulatory
Project Manager - Remediation

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