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LETTER FROM AND COMMENTS FROM ILLINOIS ENVIRONMENTAL PROTECTION
AGENCY REGARDING DRAFT FINAL DECISION DOCUMENT FINAL REMEDY LANDFILLS 6
AND 7 FORT SHERIDAN IL
6/12/2008
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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June 12, 2008

Bill Brawner
Headquarters, Department of the Army
Base Realignment and Closure Division (DAIM-BD)
600 Army Pentagon
Washington, DC 20310-0600

Re: Draft Final Decision Document for
the Final Remedy Landfills 6 and 7
Department of Defense Operable Unit
Fort Sheridan, Illinois

0970555001/Lake
Fort Sheridan (BRAC)
Superfund/Technical

Dear Mr. Brawner:

The Illinois Environmental Protection Agency (Illinois EPA or Agency) is in receipt of the Army's *Draft Final Decision Document for the Final Remedy Landfills 6 & 7, Department of Defense Operable Unit, Fort Sheridan, Illinois*. It was dated April 14, 2008 and was received at the Agency on April 16, 2008. The submittal presents the selected final remedy for Landfills 6 and 7 chosen by the Army in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Illinois EPA has performed a review of the subject document and is providing the following comments.

- 1) **Table of Contents** – Many of the page numbers listed here are currently incorrect and will change based upon the following comments. Please review this section and revise as necessary once the necessary changes have been made.
- 2) **Section 1.2** – It states here that information supporting the decision is located in the Administrative Record for the site. It should also indicate where the Administrative Record is located.
- 3) **Section 1.4** – The major components of the final remedy should be listed in bullet fashion. This should include all of the components, including those already installed as

part of the interim remedy and those added later as part of the final remedy.

- 4) **Section 1.4** – In the first paragraph in this section, it mentions the erosion controls that are part of the remedy. However, those controls are not discussed anywhere else in the document. It is assumed that the erosion controls mentioned here include the shoreline protection feature originally designed by Dr. Shabica. The shoreline protection feature, consisting of armor stones that protect the beach and the landfill, is just as much a part of the final remedy as is the cap. The details regarding the placement, location, function, etc... of those stones need to be provided in this Decision Document when discussing the selected remedy. This would include the stone piles at the end of the steel groins, the stone piles between the groins (and to the north?) below the water surface, and the layer of armor stone at the foot of the landfill, just east of the Leachate Interception Trench (LIT). Along that same line, the grouted riprap channel running down the south side of the East Slope and the boulders placed at the foot of it should also be included here. Additionally, the storm water re-route pipe running around the landfills and the 72-inch concrete outfall structure are a necessary part of the final remedy as are the piping for the land application of leachate and the fence surrounding the application area.
- 5) **Section 1.5** – The following statement should be added in this section: The selected final remedy does not satisfy the statutory preference for treatment that reduces toxicity, mobility, or volume as a principal element of the remedy for the following reasons...
- 6) **Section 1.5** – In the second paragraph it states, "...every five years thereafter for as long as needed to ensure that the remedy is, or will be protective of human health and the environment." The phrase "for as long as needed" is too vague. It should state something more like "for as long as hazardous substances, pollutants, or contaminants remain on-site above the concentrations that allow for unlimited use and unrestricted exposure."
- 7) **Section 1.5** – The last sentence states, "...the remedy is effective at meeting its intended objectives." Whereas a final remedy should be determined to be operating properly and successfully, it is understood that the Army has previously stated they will not be seeking such a determination. However, that being said, the Army should at least provide the reader with a list of those intended objectives, whatever they may be.
- 8) **Section 1.6** – Much of the information listed in the bullets here is not provided in this document. Items that are missing include the full list of chemicals of concern (COCs) for each medium, the baseline risk represented by those COCs, and the discount rate for cost estimating. Please review the bullet list and document and revise as necessary to correct these and any other noted deficiencies.

- 9) **Section 1.7** – The second sentence states the purpose of this document is to “1) identify and analyze alternative methods to contain waste and contaminated subsurface soil at Landfills 6 and 7 and 2) to accept the environmental controls necessary to protect human health and the environment.” Is this accurate? What about the other contaminated media (leachate and landfill gas)? Suggest revising this statement to more accurately define the purpose of the document.
- 10) **Section 1.7** – In the second full paragraph on page 6 it states, “Appropriate procedures will be put in place to ensure the LUCs will be maintained to be protective of human health and the environment.” What procedures will be used? How will they ensure that? Please provide the specifics for what procedures will be in place, who will be responsible for enforcing them, how they will be monitored, and how the Army will determine that human health and the environment are protected.
- 11) **Section 1.7** – The first sentence of the next to last paragraph states, “The DD presents the selected cap alternatives for Landfills 6 & 7...” That is inaccurate. It presents the selected remedial alternative (RCRA-equivalent landfill cap, leachate collection, groundwater monitoring, gas collection and destruction, etc.) for Landfills 6 and 7.
- 12) **Section 2.2.1** – This section focuses on the history of the fort more so than the history of the landfills themselves. It would be more appropriate to discuss the history of the site (the landfills). The Interim Decision Document, in Section 1.0 on pages 1-4 provides a good description and history of the landfills. Suggest incorporating some or all of the language found there.
- 13) **Section 2.2.1** – There is reference to Figure 1, which is supposed to show the Army Reserve and Navy properties and the two Operational Units (OUs). The figure does not provide that information. Additionally, the colors shown on the figure are not defined either. Please review the figure and revise accordingly.
- 14) **Section 2.3** - This section does not adequately address the prior enforcement activities at this site. The Interim Decision Document in Sections 2.0, 2.1, and 2.2 on pages 8-10 addresses this very well. Suggest incorporating some or all of the language found there.
- 15) **Section 2.4** – This section discusses the Proposed Plan, the public meeting, and the public comment period, but it does not discuss how the public was notified that the information was available or how that information was disseminated to the public. This information needs to be provided as well.
- 16) **Section 2.5** – This section does not discuss the planned sequence of actions or the scope

of problems those actions will address. The second paragraph of Section 4.0 of the Interim Decision Document provides a good example of how to address these issues.

- 17) **Section 2.6.2** – The text in this section does not focus strictly on the site (Landfills 6 and 7). It seems to focus more on the whole of Fort Sheridan instead. There is discussion regarding Bartlett Ravine which has nothing to do with Landfills 6 and 7 at all. This Decision Document deals with the landfills and therefore should discuss their characteristics, specifically. Again, reference the Interim Decision Document for a more appropriate discussion of site characteristics.
- 18) **Section 2.6.4** – Suggest creating this subsection to discuss the waste characteristics of these landfills. It should identify the chemicals of concern found within the leachate, the landfill gas, and the waste itself. It should also discuss the uncertainty associated with those determinations.
- 19) **Section 2.7.2** – The land use controls to be employed at these sites need to be specified in detail in this section. It should state what those controls are, the area affected (both horizontally and vertically), their purpose, who is responsible for enforcing them and maintaining their effectiveness, how they will be monitored, and any other relevant information. In several locations the wording is vague such as “Controls would include”, “may be prohibited” and “may not have to apply”. This document must spell out what is and is not prohibited, where it applies, and how long they will be in effect. The Agency suggests incorporating all of the necessary information into a separate Land Use Control Implementation Plan or LUCIP, which could be added to this Decision Document as an appendix and summarized and referenced here.
- 20) **Section 2.7.3** – There is mention of overhead power and telephone utilities. Are they still overhead or have they been moved underground recently? Please determine which is accurate and revise, if necessary.
- 21) **Section 2.7.3** – There is no discussion provided to explain what activities are restricted within the buffer zone. This needs to be spelled out very clearly here. As an example, no structures/buildings are to be built within the buffer zone. The roads were allowed, but nothing else.
- 22) **Section 2.7.3** – The last sentence in the last bulleted item states that leachate will not be discharged into storm drains or Lake Michigan. It should state that leachate will not be allowed to be discharged off-site, via spray drift or runoff to the storm drains or Lake Michigan.
- 23) **Section 2.7.4** – The sign outlining the Land Use Controls which is to be constructed

along the Landfill 7 boundary next to Patten Road should state that "...activities causing damage to the ground surface *or the established vegetation* should be reported ..."

- 24) **Section 2.8** – This section needs to provide the actual values generated during the risk assessment that necessitated taking action and explain what they mean. The Interim Action Decision Document covers this topic fairly well.
- 25) **Section 2.8.1** – The last paragraph discusses the remedial action objectives and states they were developed based upon the human health baseline risk assessment and Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO) values. That is not entirely accurate. TACO is not an Applicable or Relevant and Appropriate Regulation (ARAR) at this site. It is only a To Be Considered (TBC) regulation. The most conservative TACO values were only used as screening values during the investigation based upon their corresponding risk values being equal to the agreed-upon excess risk value of one in one million. As it stated here, the remedy was developed to address unacceptable risk and to comply with ARARs, which include the Illinois landfill closure regulations previously determined to be ARAR. Those regulations determined to be ARAR should be listed in this section.
- 26) **Section 2.8.1** – The Remedial Action Objectives (RAOs) are mentioned, but are not presented. These need to be specified along with their performance standards. The basis and rationale for those RAOs also need to be discussed as well as how they address the risks identified in the risk assessment. It is not acceptable to merely reference the Interim Source Control Action Proposed Plan and Decision Document.
- 27) **Section 2.8.2** – This section needs to discuss the potential for ecological risks from site releases and explain how the remedy will address those risks. This will include not only surface soil, but landfill gas, leachate, and waste material as well. Additionally, this section should conclude with a statement such as; *Therefore, there are no longer any unacceptable risks to ecological receptors at this site.*
- 28) **Section 2.10** – Most of the cost estimate values match those listed in the Interim Decision Document. However, some do not. Please review the cost estimate numbers and revise where necessary to either match those in the Interim Decision Document or explain why they have been changed.
- 29) **Section 2.10** – None of the cost estimates presented in this section or the following sections provide the discount rate used to calculate future costs. This should be provided.
- 30) **Section 2.10.1** – It states here that the No Action Alternative is no longer relevant and

thus is not discussed further in this Decision Document. Illinois EPA believes it should be discussed, if only to explain that it is irrelevant. CERCLA requires that it be evaluated at every site to establish a baseline for comparison.

- 31) **Section 2.11.4** – The second sentence of the second paragraph inadvertently mentions the interim remedy instead of the final remedy. Please revise as necessary.
- 32) **Section 2.11.7** – A cost for Alternative 1, the baseline, is listed as \$205,000. Since this alternative was not discussed in the Description of Alternatives Section, there is no explanation of from where this value originated. Please provide the detail for how this value was derived.
- 33) **Section 2.11.7** – The present worth cost of Alternative 2B listed here is \$17,560,000. The value listed under Section 2.10.3 is \$16,890,000. Please determine which value is accurate and revise the document as necessary.
- 34) **Section 2.11.7** – The first full paragraph on page 28 lists the range of costs for Alternatives 2, 2B, and 3 as \$16,862,000 to \$17,179,000. If the value listed for 2B on the previous page is accurate, then this range cannot be. Please determine which value is accurate and revise the document as necessary.
- 35) **Section 2.11.8** – The last sentence references page 26 with regard to performance of the cap and its success. The Agency cannot find where this is discussed on that page. Should it reference page 31? Please review that sentence and revise as necessary.
- 36) **Section 2.12** – This section does not present the information called for in its title. It should identify the principal threat wastes or source materials known to be located at this site and discuss the hazards and risks associated with them.
- 37) **Section 2.13** – This section does not provide a detailed description of the complete selected remedy. It should expand on the description provided previously and provide a brief overview of the remedial action objectives and performance standards. The description should discuss the interim remedy already in place, including the cap, the leachate collection system, the gas collection and destruction system, the shoreline protection feature, the stormwater re-route, the grouted riprap channel, the specifics of the Groundwater and Leachate Monitoring Plan, the site specific Operations and Monitoring Plan, and the Land Use Controls that are or will be put in place.
- 38) **Section 2.14** – In the fourth sentence the words “engineered barrier” are used in reference to the landfill cap. Suggest re-wording that sentence to the following: The landfill cap serves not only as an effective barrier between the waste and potential

receptors but provides a passive recreational area for walking.” The term engineered barrier should not be used when discussing the landfill cap.

- 39) **Section 2.14** – The fifth sentence should state “...prevents leachate from *migrating off-site or* being discharged into Lake Michigan.”
- 40) **Section 2.15** – The costs presented here do not match those presented in Section 2.10.3 for the selected remedy. They should be the same. Please review the listed costs and revise as necessary.
- 41) **Section 2.15** – This section does not provide the information that is required of it. The purpose of this section is to provide a brief, site-specific description of how the selected remedy satisfies the statutory requirements of CERCLA §121 (as required by NCP §300.430(f)(5)(ii)).
- 42) **Section 2.16.1** – See comment number 6 above.
- 43) **Figure 2** – The figure shows the wave protection armor stones that were placed at the end of the steel groins. However, it does not show the armor stones that were placed between those piles (and to the north?) just below the water’s surface. It also does not show several other parts of the final remedy such as the armor stones that are at the foot of the landfill just east of the LIT, the grouted riprap channel down the East Slope including the boulders at the foot of the channel, or the storm water re-route pipe and outfall structure. Those are all part of the final remedy as well and should be shown on the figure. It might also be helpful to show the enclosed flare, leachate collection tanks, the piping for the land application of leachate, and the fencing surrounding the application area.
- 44) **General Comment** – The steps to be taken by the Army to monitor the performance of the remedy and the surrounding area, in perpetuity, should be spelled out in this document. Merely stating that those steps are covered in the O & M Plan is insufficient as they are considered an important part of the final remedy.
- 45) **General Comment** – There needs to be discussion within the Decision Document regarding the potential need for additional Army response due to failure of the remedy for whatever reason, be it slope failure, surrounding bluff recession, breakdown of cap components, intentional destruction (vandalism), etc... It should conclude that the Army is required to return to this site and conduct the necessary response to protect human health and the environment, whether that is repairing the cap, replacing the cap, or complete excavation of the landfill.

- 46) **General Comment** – How will the Army be notifying the public of the issuance of this Final Decision Document? Illinois EPA suggests that the final document should be provided to the Restoration Advisory Board members and its availability should also be announced in a notice in the local newspaper.

If you have any questions regarding anything in this correspondence, you may contact me at 217/557-8155 or via electronic mail at Brian.Conrath@illinois.gov.

Sincerely,

Brian A. Conrath

Brian A. Conrath
Remedial Project Manager
Federal Facilities Unit
Federal Site Remediation Section
Bureau of Land

BAC:  RAC:H:\fortsh\LF6&7RELATED\LF6&7DRODrvw

cc: Bill O'Donnell, Army BRAC
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