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MEMORANDUM

TO: Adrienne Townsel
FROM: Barry Giroux *Barry*
DATE: February 26, 1992
RE: NSB-NLON IR PROGRAM
FEBRUARY 13, 1992 MEETING WITH THE USEPA REGARDING ARARS,
HUMAN HEALTH RISK ASSESSMENT, AND ECOLOGICAL RISK
ASSESSMENT

Attached is an attendance list and a copy of the agenda for the meeting which was held with the USEPA on February 13, 1992. Provided below is a brief summary of the meeting.

ARARS ISSUES

- 1) **MCLs** - The EPA stated that as long as the state classification of ground water has a goal of GA, MCLs are ARARs, and that waivers do not appear appropriate.

Two options exist. One is to petition the state to change the classification system and the other is to establish alternate concentration limits under CERCLA. Changing the ground water classification would be lengthy and difficult at best. The EPA said ACLs have been approved and are being evaluated at two sites in Region I (Yarworski and Winthrop landfills). They will investigate the appropriateness of ACLs at NSB-NLON and provide some feedback. The state's opinion regarding ACLs is a key factor.

- 2) **AWQC** - The EPA stated that AWQC appeared to be relevant and appropriate criteria (Area A downstream watercourses), however, they will see what has been done at other sites under similar circumstances. They were aware of a superfund site that had high upgradient concentrations in surface water at which cleanup was not required as the contaminant source was from offsite.
- 3) **State Soil Cleanup Guidelines** - The EPA stated that state standards should be classified as TBC values not ARARs. This concurs with Atlantic's approach in the IR report. They also stated that available models would probably be more appropriate to determine cleanup levels based on leaching hazards of soil constituents to ground water, in addition to risk assessment analysis.
- 4) **TSCA** - It appears that classification of TSCA requirements is correct as written. This will be confirmed by a detailed check of 40 CFR 761 by the EPA. The EPA will report back regarding this issue.

- 5) **State Siting Regulations** - The EPA explained that their desire to categorize this requirement as a potential ARAR is because the RCRA hazardous waste storage area, although proposed to be built at DRMO, could possibly be built anywhere. Based on this clarification, there appears to be no problem classifying these requirements as potential ARARs.

RISK ASSESSMENT ISSUES

- 1) **Exposure Scenarios** - The baseline risk assessment should contain certain future scenarios even though it is unlikely that they will happen, including ingestion of ground water.
- 2) **Chemicals of Interest** - After some discussion, I believe there was a general consensus that the selection process used adequately selected the chemicals of interest.
- 3) **Mean** - All that is needed is an explanation of why an arithmetic rather than geometric mean was utilized.
- 4) **Accessibility OBDA** - It was explained that the scenario regarding the children exploring the wetlands included OBDA sample points.
- 5) **Exposure Assumptions** - After discussion, it was decided that the risk discussion in the report will explain what the risk would be if the exposure dose is 480 mg for construction workers; that dermal adsorption of Area A downstream surface waters will not be considered an exposure pathway; and that a clarification will be made regarding exposure durations used in calculation of ADDs.
- 6) **Air Modeling** - The modeling method used was explained in detail. After consultation with their air group, the EPA will get back to us on this issue.
- 7) **Term ADD** - The term CDI (chronic daily intake) will be used in lieu of ADD (average daily dose).
- 8) **Show Equations** - Specific equations will be shown in the revised report.
- 9) **Detection Limits** - The values used in the risk assessment are the appropriate terms. Should future scenarios involve ground water exposures, the CRDLs should not be used when they are greater than MCLs.
- 10) **Uncertainty** - The uncertainty section of the report will be revised. Example formats were presented to the USEPA.

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- 11) **Toxicology** - The methods used were described. After further consultation, the EPA will get back to us regarding the most appropriate method to use.

Regarding lead, the IUBK model should be used except for scenarios regarding water ingestion. In this case, the MCL should be used.

- 12) **DQO** - Our understanding of the EPA DQO guidance was presented (i.e., Level III QA/QC is suitable for risk assessment). The EPA will check their guidance and get back to us on this issue.
- 13) **Background** - As published, background values were not used to eliminate any metals from the risk assessment, therefore, this is a moot point regarding work to date. However, future sampling efforts must include collection of background samples.

ECOLOGICAL RISK ASSESSMENT

- 1) **Non-Detects** - The text will be clarified. The values used are appropriate.
- 2) **Future Studies** - Even though future remediation may make additional studies academic, the additional ecological investigation recommended in the IR report will further define baseline risks. This additional ecological data is also required to evaluate a limited action alternative, and to determine ecological risk-based cleanup objectives.
- 3) **Bird Species** - It was concluded that species collected are appropriate.
- 4) **RFD From NOAEL** - The method used and rationale for use of a safety factor of 0.1 vs. 0.01 was explained. It appears the approach used is appropriate.
- 5) **Zinc in Plants** - This section will be clarified as discussed.
- 6) **Hotspot Inclusion** - It was explained that this spot was evaluated to present the full range of calculated risk.
- 7) **Other Species** - This was discussed generally. No additional species were identified for calculation of risk.

The above summary is very general, however, more specific written responses to EPA risk assessment comments are being prepared for your review.

Based on a phone conversation with Paul Jameson of the CTDEP, the state will respond to the ARAR issues either in writing or at a future meeting to be held in their office in Hartford. Due to scheduling constraints, they were not able to attend the meeting in Boston.

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It is clear that some issues will remain unresolved for some time as they require acquisition of additional data or require higher level input from policy makers.

Other issues are not fully resolved and require a decision from the Navy regarding the preferred course of action. These issues will be presented in a separate memo.

cc: William Mansfield - NSB-NLON

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AGENDA

**February 13, 1992 Meeting With the USEPA
Regarding Remedial Action Objectives**

- 1. ARAR Issues 10:00 to 11:00
- 2. Human Health Issues 11:30
~~11:00 to 12:00~~
- 3. Lunch 12:00 to 1:00
- 4. Human Health Issues (continued) 1:00 to 3:00
- 5. Ecological Issues 3:00 to 4:00

***SEE ATTACHED DOCUMENTS WHICH LIST ISSUES
TO BE DISCUSSED DURING EACH SESSION***

NSBNL Tech Mtg.

February 13, 1992
am session

Name/Affiliation

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