

From: Jack Parrott
To: LMB1
Date: 6/19/96 8:54am
Subject: AMS

Based on the information you provided, and my conversation with Mike Weber of NRC Region III, it is unlikely that there is significant contamination of the soil beneath the floor of the basement or WHUT room at AMS. My conclusion is based on the evidence presented by the licensee that:

- 1) The hydraulic gradient during the flooding of the basement was from the soils to the basement.
- 2) The hydraulic gradient since the removal of the water from the basement and the installation of the new footer drain has been toward the footer drain system and the basement has remained dry. This indicates that the soils surrounding the basement are hydraulically connected to footer drain system.
- 3) No contamination has been found in the water removed from the footer drain system.

For contamination to leach or leak from the basement it would have to be somewhat soluble. Therefore, the contamination, if released, would likely show up in the footer drain system that appears to be hydraulically connected to the soils surrounding the basement.

Some contamination of the soils beneath the basement can't be completely ruled out, but widespread contamination is unlikely given the information at hand. The cost of remediation of small areas of soil contamination, if they exist, would easily be covered if the proper amount of contingency is applied to the cost estimate for decommissioning this site.

SUBJECT: REVIEW OF ADVANCED MEDICAL SYSTEMS, INC., DECOMMISSIONING COST ESTIMATE FOR THE LONDON ROAD SITE IN CLEVELAND OHIO (NRC LICENSE NO. 34-19089-01)

I have completed my review of the Advanced Medical Systems, Inc. supplemental submittal (October 20, 1995) entitled "Conceptual Decommissioning Plan for the London Road Facility" and concluded that the estimated cost of \$3,304,474 may not realistically reflect the cost to decommission the facility. The basic reasons for my concerns are discussed in detail below. In addition, the cost estimate to decontaminate/decommission a similar facility was \$ 17 million. The facilities are similar; however, the AMS facility has an inventory of 2,200 kilograms of depleted uranium inventory, 11,747 curies of bulk cobalt 60 metal, 49,133 curies of cobalt 60 sealed sources, and has significantly higher exposure rates.

The basic reasons for my concerns about the cost estimate are: 1) the cost estimate does not address the 2,200 kilograms of depleted uranium inventory; 2) the estimate does not address the removal/disposal of the 11,747 curies of bulk cobalt 60 metal and the 49,133 curies of cobalt 60 sealed sources; 3) the cost estimate does not adequately describe the remote decontamination techniques for the Hot Cell and W.H.U.T. Room (generally remote techniques are used when the exposure rates exceed 5 R per hour, the Hot Cell exposures ranges from 12 R to 200 R per hour and the W.H.U.T. exposure rate range from 50 to 240 R per hour); 4) the cost estimate does not address the work difficulty factors associated with the decommissioning (when remote techniques are used significant amounts of time are lost due to high exposure areas, access in and out of these areas, and maintenance of equipment); and 5) the cost estimate does not address the 2,200 kilograms of depleted uranium or the 61,000 curies of cobalt 60, and the disposal charges for curie content or special handling of high activity packages, or for transportation of shielded casks materials can substantially increase the waste management costs.

Based on the current conditions at the Advanced Medical Systems, Inc. London Road site, the estimated cost of \$ 3,304,474 may be off by several times the actual cost to decommission the site. As we discussed above, significant changes in the assumptions will have a significant impact on the total decommissioning cost. In order to have a reasonable level of confidence in the cost estimate, I recommend that we require Advanced Medical Systems, Inc. to conduct a detailed characterization of the existing buildings, and develop a detailed cost estimate that address the decontamination methods.

If I can be of any additional help, please contact me on 415-6702.

Larry Pittiglio (P:\AMS1)

Attachment

Joe,

Here's some information about the remediation of the London Rd. Interceptor.

In Dec. 1994, NEORSD and AMS began negotiating about having an AMS worker (or contractor) go into the NEORSD manhole in order to take samples, etc., of the contaminated areas. We have copies of letters from NEORSD and AMS which discuss the requirements for sampling, confined space entries, etc. It seems that the negotiations stopped in Sept. 1995. At about that time, AMS sent a letter to NEORSD which: 1) stated that an AMS worker was adequately trained for the confined space entry, and 2) requested access to the interceptor. NEORSD replied that it required an "indemnification/hold-harmless agreement from AMS and [the AMS worker] for any exposures to any substances he might receive while in the District's manhole, and for any contamination of up stream District facilities." I believe this was the first time NEORSD had mentioned anything about an indemnification/hold-harmless agreement to AMS. An AMS attorney has indicated to RIII that AMS will not sign any type of a indemnification/hold-harmless agreement. As far as I know, the negotiations have not progressed past that stage.

I'll send you copies of a few letters from NEORSD and AMS via fax.

Regarding the License Condition:

A. From Inspection Report 030-16055/95005(DRSS) dated 12/4/95:

Regarding the requirement to remediate the London Road interceptor, License Condition 19.F. of Amendment 32 required that: (1) AMS coordinate the remediation of the interceptor with NEORSD, and (2) the project be completed by June 17, 1995. On June 6, 1995, the license was amended to require that: (1) the project begin by no later than July 8, 1995, and (2) AMS notify NRC no later than July 14, 1995, to confirm initiation of the project, and to provide an estimated completion date. AMS and NEORSD have been negotiating/discussing the project since at least December, 1994. To date, very little progress has been made; in fact, AMS has not yet been allowed to enter the interceptor. This is necessary in order for AMS to evaluate the contamination of the interceptor, and develop a remediation plan. NRC continues to monitor the status of this project.

B. From a letter to NEORSD dated 2/1/96:

Your letter refers to NRC License Condition No. 19, which requires AMS to remediate the London Road interceptor. The initial activities of this remediation project include AMS making a confined space entry into the NEORSD system in order to evaluate the contamination of the interceptor. This evaluation is necessary for AMS to develop an appropriate remediation plan. These activities must be coordinated with NEORSD.

We have been monitoring the progress of the negotiations between AMS and NEORSD regarding the arrangements for entrance into the NEORSD system. We are aware of the fact that by December 1994, negotiations between AMS and NEORSD were underway regarding the confined space entry. We are also aware that these negotiations have not yet concluded. Thus, the confined space entry into the NEORSD has not yet been made.

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Regarding the aforementioned license condition, we consider the initiation of the project to include the negotiations between AMS and NEORSD regarding the arrangements for entrance into the NEORSD system. We continue to monitor the status of this project.

In your letter, you object to the statement in the inspection report which indicated that AMS has not yet been allowed to enter the NEORSD interceptor. Though the statement is factual, it could be misinterpreted. NRC recognizes that AMS and NEORSD have failed to agree on arrangements for entrance into the interceptor.

Please call if you need more information.

Mike