

AUG 17 1995

Advanced Medical Systems
ATTN: David Cesar
Treasurer
121 North Eagle Street
Geneva, OH 44041

Dear Mr. Cesar:

We have completed our review of your May 30, 1995 response to our March 30, 1995 deficiency letter regarding your cost estimate to decommission the London Road facility. We still feel that your cost estimate of \$1,795,612 does not realistically reflect the cost that will be required to decommission the facility. You have not demonstrated that the soil under the building is free of contamination, and your proposed disposal cost of \$181 per cubic foot appears to be an under estimate based on the recent opening of Barnwell in South Carolina.

As previously discussed in our March 30, 1995 letter, recent water problems at the site has resulted in two additional problems that may significantly impact the cost of decommissioning the London Road site. The two problems are: (1) the concrete slab may have to be removed from the WHUT room as a result of the water causing additional contamination of the concrete; and (2) the contaminated water may have caused extensive soil contamination under the basement slab. The impact of having to remove and dispose of the contaminated concrete, and to remove and dispose of significant quantities of contaminated soil may be several times greater than the initial estimate.

Furthermore, the flooding problems in the basement occurred after SEG's site characterization and cost estimate report of January 1995. Therefore, we believe that the three core samples through the basement floor prior to the flood may not possibly be representative of current soil conditions under the basement slab and WHUT room.

In your response to our question concerning the possibility of structural damage to the building due to recent water problems at the facility, you stated in item (3) on page 2 of your letter that no structural damage was observed, and that recent core borings "outside" the facility indicated no "significant" outside contamination exists. AMS has not performed an adequate site characterization to support these conclusions. In addition, your statement regarding "significant" outside contamination is a clear indicator that "outside" contamination, in fact, does exist.

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Table 8

Restoration of Contaminated Areas on Facility Ground						
Task	Work Days					Total Cost (\$)
	Supervisor	Foreman	HP	Clerical	Total	
Backfill and restore site	0	0	0	0	0	0

Table 9

Final Radiation Survey						
Task	Work Days					Total Cost (\$)
	Supervisor	Foreman	HP	Clerical	Total	
Outdoor release survey	36	40	20	1	87	43040
Building release survey	12	15	6	0.5	33.5	14480
Total	48	55	26	1.5	130.5	57520

Table 10

Site Stabilization, Long-Term Surveillance (if applicable)						
Task	Work Days					Total Cost (\$)
	Supervisor	Foreman	HP	Clerical	Total	
On-going building maintenance and surveys (50 yr)	125	600	62.5	125	912.5	312000

Your decommissioning cost is also based on a disposal cost of \$181 per cubic foot. A more realistic cost of approximately \$300 per cubic foot (based on July 1, 1995, reopening at Barnwell) base charge plus surcharges associated with curie content, weight, cask, etc., would be appropriate. This will result in a significant increase in decommissioning cost. Please adjust your cost estimate, accordingly.

Due to the recent flooding problems and the contamination that was discovered under the isotope shop slab airlock and in the under drain system, please submit a revised characterization of the facility that includes a scientific assessment of the radiological conditions of the soil under the basement slab and WHUT room. We would expect that a re-characterization of the site and incorporation of current disposal cost at Barnwell into your decommission financial plan will dramatically increase your cost estimate to decommission the facility.

Given these recent events/discoveries at the 1020 London Road site, we feel that the January 1995 cost estimate and site characterization are no longer valid. Enclosed is a copy of the Draft Branch Technical Position on Site Characterization for Decommissioning that you should use to re-characterize the facility.

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 98507.

If you have any questions, please feel free to contact me at (708) 829-9834.

Sincerely,

Original Signed By
John R. Madera, Chief
Nuclear Materials Licensing Section

License No.: 34-19089-01
Docket No.: 030-16055

Enclosure: Draft Branch Technical Position
On Site Characterization for
Decommissioning

UMENT NAME: M:\03016055.DF5

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FICE	DRSS/RIII	C	DRSS/RIII	KH	DRSS/RIII	C	DRSS/RIII	C		
ME	KGNUL:jaw	KH	CLPITTOGLIO	v	MWEBER	mtw	JRMADERA	Bu		
TE	08/16/95	12	08/16/95	E-mat	08/16/95		08/16/95			

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Comments on AMS Conceptual Decommissioning Plan

1. Items to be Decommissioned, pp. 2-9

We assume that the project manager agrees with the scope of the proposed decommissioning and that the sources of contamination are reasonably represented in the report.

2. Decommissioning Cost Estimates, 2nd Para., p. 15

AMS is proposing to base its decommissioning financial assurance amount on a SAFSTOR approach using a 50 year storage period. In the Statement of Considerations for the 1988 decommissioning rulemaking (53 FR 24018) "the intent of the rule is to provide the necessary guidelines with regard to use of decommissioning alternatives in a manner which protects the public health and safety." In the 1988 rulemaking, provisions for deferring dismantlement are applicable only to power reactors where up to a 60 year period is specifically allowed. Deferred decommissioning for materials licensees and non-power reactors is not specifically allowed because the supporting analyses in the "Generic Environmental Impact Statement on Decommissioning Nuclear Facilities" (GEIS), NUREG-0586, showed that there would be no significant advantages to delaying decommissioning for these types of licensees. Factors that need to be considered in addressing decommissioning alternatives include the following:

- a. Occupational exposures
- b. Costs
- c. Waste disposal
- d. Financial viability of licensee
- e. Financial assurance provisions

In allowing up to a 60 year period for decommissioning power reactors, there is about an 80 percent saving in occupational exposures for the deferred option. The overall costs between DECON and SAFSTOR are about the same. For a 50 year SAFSTOR period the waste volumes are 90 percent less than with DECON. For a utility, utilities are considered to be fundamentally strong financial corporations due to the monopolistic system they operate in. Because the costs of DECON and SAFSTOR are similar, decommissioning financial assurance is provided at levels that could fund decommissioning even if a utility is unable to do so anytime during the SAFSTOR period.

* The GEIS indicates that there may be cases for materials licensees where deferred decommissioning may be the most protective of public health and safety. In Chapter 14 of the GEIS, it is stated that deferred dismantlement could be a preferred option for source manufacturers which use short-lived nuclides that decay within a few weeks or months. However, longer SAFSTOR periods are not discussed as being suitable. This is especially the case of AMS, where there the viability of the corporation is tentative due to its substantive decommissioning obligations and the speculative nature of its limited business prospects for marketing teletherapy sources in the third world. By providing decommissioning financial assurance at a level that

Attachment

would not allow the complete remediation of the facility at any time during the SAFSTOR period, the public taxpayer could be forced to accept a decommissioning obligation that substantially exceeds the proposed level of funding.

3. Decommissioning Cost Estimates, 2nd Para., p. 15

AMS estimates that the SAFSTOR period maintenance and surveillance costs would be 4 staff-hours per week. Based on the contamination levels in the building, the groundwater seepage into the basement, restrictions on releasing water to the sewerage system, and possible structural damage to the building, this estimate appears to be very low. These low maintenance and surveillance costs substantially affect the long-term decommissioning costs.

4. Decommissioning Cost Estimates, 2nd Para., pp. 15-16

AMS is assuming that the lateral connection to the sewer system will remain in place during the SAFSTOR period. What is the rationale for this? There appears to be no cost beneficial reason to delay the remediation of this contamination.

5. Duration of Safe Storage Period, p. 19

The report states that the safe storage period is consistent with U.S. EPA policy. What policy is this? Note that our policy, embodied in the 1988 regulations, is that there is no significant benefit for delaying decommissioning at materials licensee facilities.

6. Table 3

Will a more detailed decommissioning cost estimate be submitted? This table is a summary of cost calculations, but does not provide sufficient detail for us to verify the cost estimates. We will review the detailed cost estimate when it is submitted.