

MAY 09 1996

REGIONAL TECHNICAL ASSISTANCE REQUEST FORM

Date: May 2, 1996

Mail or E-Mail to: Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety, NMSS

From: *for* John R. Madera, Chief *Kim A. Hall*
Nuclear Materials Safety and Safeguards Branch, Region III

Licensee: Advanced Medical Systems (AMS) License No. 34-19089-01

- ☐ Control No. 98507
- ☐ Letter dated: April 12, 1996
- ☐ Suggested change in licensing procedure (enclosed):
- ☐ Problem/Issue:

On March 20, 1996, we issued a deficiency letter to AMS addressing concerns we had over their "Conceptual Decommissioning Plan" (CDP). Your staff provided input in the drafting of that letter (Attachment A). For your information we have attached a copy of the March 20 letter (Attachment B). On April 12, 1996, AMS submitted their response (Attachment C). We ask that you review their response and provide comments. For your information we have provided comments as noted below.

- ☐ Action Required:
- ☐ Recommended Action (with revisions): ☐ Approve or ☐ Reject

Remarks:

The following issues need to be resolved:

1. The primary basis for which we feel AMS' cost estimate of 1.8 million dollars is low (see

2-1-97

Attachment

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our 8/17/96 letter - Attachment D) is that they have not adequately characterized the site to demonstrate with a reasonable level of confidence that the soil under the basement and WHUT room floor is not contaminated. In response to our concern, AMS hired a registered hydrogeologist, who states in a letter it is his opinion that "it is unlikely that contamination migrated from the building to these soils, and therefore, conditions in the soils would not have changed due to the flooding of the basement." He further states that it is of his opinion that "additional sampling of soils below the basement and WHUT room floors should not be required." The letter, signed by Donald Jones, is dated April 11, 1996, and is attached to AMS' April 12 letter (Attachment C). The NRC needs to decide if it will accept the report. It is our opinion that the report should be accepted, and the issue of further sampling below the basement and WHUT room floors should be closed or, as an alternative, NRC should have it's own hydrogeologist evaluate the issue so that the Commission can determine whether or not to accept the report.

2. Based upon input from headquarters staff, we incorporated into our 3/20 letter, references to NUREG-0586 to address AMS' proposal to SAFSTOR radioactive material and waste. Specifically, we reference the NUREG as stating that deferred dismantlement could be a preferred option for source manufacturers who use short-lived nuclides that decay within a few weeks or months. We also stated that SAFSTOR periods are not discussed in the NUREG as being suitable for materials licensees. In their letter, AMS presents a differing interpretation of the NUREG. AMS feels that the NUREG recognizes SAFSTOR as an acceptable decommissioning alternative for "short-lived radionuclides" at power reactors as well as materials licensees. They also stated that the NUREG defines short-lived radionuclides as those with half-lives less than about 10 years. Please reference p. G-12 of the NUREG. The definition of short-lived radionuclides for purposes of the GEIS study are those which have a half-life of less than about 10 years. These differences in interpretation of the NUREG and the issue of allowing AMS to SAFSTOR material, need to be resolved. NRC must decide if it will accept the SAFSTOR method. Furthermore, if the decision is to accept SAFSTOR, then we feel AMS will need to make changes in their program to assure safe, long term storage of material. Clearly, storage and security of material in SAFSTOR for a period of no more than 50 years, as well as financial stability of a company will have an impact on the Commission's decision to grant SAFSTOR. It appears that these are issues a licensee must address before we would authorize SAFSTOR. Any additional guidance that you can provide which a licensee should address prior to authorization of SAFSTOR, would be appreciated. Please note that AMS referenced the Draft GEIS (1981) in their April 12 response; however, it appears that the content is the same as the final version (1988).

NOTE: AMS met with Region III and Headquarters management on May 7. AMS has indicated they are accepting bids to dispose of their bulk and sealed cobalt-60. In addition, it appears they may accept bids to dispose of boxed and drummed cobalt-60 contaminated waste. If this occurs, the only material remaining would be that which is in the plug in the hot cell (3351 curies of bulk and sealed cobalt-60, and 664 curies of cesium-137 according to AMS records), and facility contamination. AMS will be submitting a written proposal to Region III within 2 weeks. The proposal will outline their

plan and request the NRC release funds that are currently secured in their decommissioning financial assurance instrument. If approved, this will have an impact on their cost estimate for decommissioning and conceptual decommissioning plan.

Headquarters Reviewer: _____

Regional Reviewer: Kevin Null

Reviewer Code: R2

Reviewer Phone No.: (708)829-9854 Fax No.: (708)515-1259

Request Needed by: __/__/__ (date) Form TAR-10

8/93

cc: Cindy Pederson