March 3, 1995

NOTE TO:

IMAB READING FILE

FROM:

Jim Smith, Health Physicist Medical and Academic Section Medical, Academic, and Commercial Use Safety Branch, IMNS, NMSS

Shi

SUBJECT:

RESPONSES TO WASTE QUESTIONS FROM THE FEBRUARY 2, 1995 FAX FROM

TISH MORGAN, ISOTOPICS, NUS, SAVANNAH RIVER CENTER

The following responses (Attachment 1) to the questions in Tish Morgan's February 2, 1995 fax on radioactive waste (Attachment 2) were discussed in a teleconference on February 28, 1995, between Tish Morgan and other representatives of NUS, and representatives of NRC, James Smith, IMNS, and James Kennedy of DWM. The attachments have been faxed to NUS to assist in their preparation of an article to appear in their newsletter <u>Isotopics</u>.

Attachments:

1. Responses to waste questions

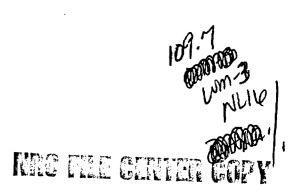
2. Fax from Isotopics dtd 2/2/95

Distribution:

LWCamper Brat Coordinator PDR JKennedy MWeber NUDOCS

20004-





RESPONSES TO ISOTOPICS FAX DATED FEBRUARY 2, 1995

1. Do you see any significant progress toward siting/constructing/operating a new radwaste storage facility in 1995?

In early 1995, the National Academy of Sciences will be issuing a report on the Ward Valley CA disposal facility that will be important in the Administration's decision on whether to transfer land from the Federal Government to the State of California. This land transfer is a key milestone for the facility and would bring it significantly closer to final approval and the start of construction.

The States of Nebraska, North Carolina, and Texas have license applications for new disposal facilities under review and although none of these reviews are to be completed this year, we expect that these States will continue to make steady progress in their reviews to obtain information on whether the sites are suitable for licensing.

2. What does the "interim" storage picture look like especially for medical licensees? Are there enough brokers around to offer licensed storage? What responsibility does a facility have when dealing with a broker?

The NRC's responsibility is in the area of ensuring public and safety and not management of waste storage capacity; therefore, we have not undertaken any study of this issue. However, we have heard of agreement state licensees that will be experiencing storage shortfalls and will limit or cease the use of radioactive material; therefore we recommend that you consult the states and compacts to get further information on their experiences. As to the responsibility of the facility in dealing with a broker, the license can only transfer waste to a recipient per the general requirements of 10 CFR 20.2001.

3. What recommendations would you make to medical licensees on waste minimization, tracking and controlling?

NRC has issued guidance on waste minimization in Information Notice 94-23, "Guidance to Hazardous, Radioactive and Mixed Waste Generators on the Elements of a Waste Minimization Program." Also, guidance on tracking and controlling waste can be found NRC in the Model Procedure for Waste Disposal, Appendix R, of Regulatory Guide (R.G.) 10.8, Guide for the Preparation of Applications for Medical Use Programs.

4. Is NRC seeing a notable increase in license amendments for additional storage areas and exceptions to the 65-day half-life rule?

Request for additional storage areas have increased in the last several years as well as the number of requests for exemptions from the 65-day half-life decay-in-storage (DIS) rule. Primarily the requests for DIS have been to allow DIS of the isotopes with half-lives up to 120 days.

5. Have any major companies (e.g., Syncor, Mallinckrodt, Siemens) approached the NRC about a centralized commercial storage facility?

To our knowledge, no formal license applications for centralized

commercial storage of LLW have come in; however, we have received phone calls from states and other entities seeking general information regarding licensing of a centralized storage facility.

6. Is information readily available to licensees about "substitute" radioisotopes or materials which would enable them to reduce waste generation? Where?

NRC has not researched or published such information; however, the staff does recall seeing articles and advertisements in professional journals, e.g., Physics Today, in which manufacturers claim to have alternatives to radioisotopic assaying, or products that require less radioactive material than traditional products.

7. What is the most common radwaste or storage violation or problem the NRC finds?

The violations most often cited are: failure to maintain adequate records of waste disposal; failure to perform or document surveys of DIS waste prior to disposal as normal waste; and failure to hold DIS waste for the required 10 half-lives prior to disposal.

In addition to violations, the most common problems the NRC inspectors are finding are housekeeping and facility problems, i.e., leaking roofs, crushed waste containers, and failure to label waste containers.

8. Describe some good practices in the preparation and handling stages of radiopharmaceutical which would reduce waste volume.

Generally, radiopharmaceuticals used by NRC licensees are disposed of by DIS; therefore, reduction of waste volume should not normally be a problem. Also, since NRC's goal is to ensure health and safety, we look at the use from a safety point of view and not waste reduction. Guidance on safe use of radiopharmaceuticals can be found in Appendix I of R.G. 10.8.

9. In 1994, one manufacturer ceased production of a nuclear-powered pacemaker and a major medical study found a non-nuclear diagnostic technique just as effective for certain heart problems. Do you see a trend to reduce the dependence on nuclear materials and devices in the medical arena?

Yes, we have seen a reduction in the use of cobalt-60 teletherapy.

10. What steps is the NRC taking to prevent radwaste storage from becoming a national crisis?

NRC is carrying out its established regulatory program to help ensure that LLW in storage is performed safely. Information Notice (IN) 90-09 provided guidance for storing safely for licensees seeking extended storage of radioactive wastes. In addition, we have met with many generator groups to discuss implementation of the guidance in IN 90-09.

We are also implementing our normal licensing and inspection program and that includes the storage of LLW by licensees.

Based on the experience of LLW generators in Michigan, who have been storing their waste for almost five years, licensees have not had significant safety problems in storing their LLW. However, we are aware that this experience may not always be true and are therefore implementing our regulatory program to help ensure that LLW continues to be stored safely.

In the interest of better protection of the public health and safety, reducing occupational exposures, and in support of the national goal of providing disposal for LLW, we are also assisting the states whenever possible by providing technical assistance in their licensing reviews to develop new disposal capacity.

11. As it stands now, how will the proposed EPA draft 40 CFR 193 affect licensees.

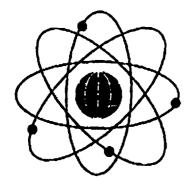
In the near future the staff will issue its official comments on the preproposal draft of 40 CFR 193. The staff does not believe the standards are necessary and is concerned that their publications could disrupt state efforts to develop new disposal capacity. The staff has heard comments from the States that the rule is unnecessary and would be disruptive to their efforts to license new facilities.

12. Does the NRC anticipate any possible changes to existing rules for facilities holding materials with 10 half-lives before disposing?

Currently, the NRC is conducting a generic survey of nine large licensees that use DIS for disposal. The goal of the survey is to develop guidelines that may allow the staff to review and approve requests from licensees to dispose of wastes after less than 10 half-lives or for isotopes with half-lives of greater than 120 days. We are still conducting the survey and it is not certain what will come of the information.

PK39

Date: 2-2-95



NUS Savannah River Center

900 Trail Ridge Road Aiken, South Carolina 29803

1-800-368-5497 PHONE: 1-800-476-8679

800-ISO-TOPX

week

FAX: (803) 643-8754

An information source for the medical radiation community

To: John Glenn Extension:
Company: USNRC
Telecopy No.: 301 - 415 - 5397
Number of Pages Sending (including cover page):
Special Instructions: I spoke up Mal Knappon
Valore: an interview on LLW, radwaste, medical
issues for our newsletter. He asked that I fax the
g's to your attention. I would like a conference call up you and other appropriate person from Paperiello's iso TOPICS Shanks, Zishmang
from Paperiello's iso IOPICS Shanks, Zishmange

OUESTIONS FOR CONSIDERATION/COMMENT

- 1. Do you foresee any significant progress toward siting/constructing/operating a new radwaste storage facility in 1995?
- 2. What does the "interim" storage picture look like especially for medical licensees? Are there enough brokers around to offer licensed storage? What responsibility does a facility have when dealing with a broker?
- 3. What recommendations would you make to medical licensees on waste minimization, tracking, and controlling?
- 4. Is the NRC seeing a notable increase in license amendments for additional decay-in-storage areas and exceptions to the 65-day half-life rule?
- Have any major companies (e.g., Syncor, Mallinckrodt, Siemens) approached the NRC about a centralized commercial storage facility?
 - 6. Is information readily available to licensecs about "substitute" radioisotopes or materials which would enable them to reduce waste generation? Where?
- What is the most common radwaste or storage violation or problem the NRC finds?
- Describe some good practices in the preparation and handing stages of radiopharmaccutical which would reduce waste volume.
 - 9. In 1994, one manufacturer ceased production of a nuclear-powered pacemaker and a major medical study found a non-nuclear diagnostic technique just as effective for certain heart problems. Do you see a trend to reduce dependence on nuclear materials and devices in the medical arena?
 - 10. What steps is the NRC taking to prevent radwaste storage from becoming a national crisis?
 - 11. As it stands now, how will the proposed EPA draft of 40CFR193 affect licensees?
 - 12. Does the NRC anticipate any possible changes to existing rules for facilities holding materials with 10 half-lives before disposing?