

DEC 31 1992

MEMORANDUM FOR: Ronald R. Bellamy, Chief
Nuclear Materials Safety Branch, RI

FROM: John E. Glenn, Chief
Medical, Academic, and
Commercial Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

SUBJECT: TECHNICAL ASSISTANCE REQUEST FOR APPLIED HEALTH PHYSICS,
INC., LICENSE NO. 37-14600-01; CONTROL NO. 116348

This is in reference to your Technical Assistance Request (TAR), dated September 10, 1992, regarding Applied Health Physics, Inc.'s amendment request to provide commercial decay-in-storage service for customers. We included several questions for the licensee to address in our response to you on June 24, 1992; however, the licensee did not address all the questions. There was no indication in your TAR that these items were already addressed and approved in Applied Health Physics, Inc.'s license. These questions are included in the list of questions in Enclosure 1. The licensee may have addressed, and received approval for, some of these questions in their license application. If so, the licensee does not need to resubmit the information. You should indicate if this is the case when submitting the licensee's response to us. Torre Taylor, of my staff, has already discussed this with Tom Thompson, of your staff. We also have additional questions regarding the information submitted by Applied Health Physics, Inc., dated August 27, 1992.

Upon receipt of the requested information, we can continue our review of the licensee's request. If you have any questions, please contact Torre Taylor at (301) 504-2611.

John E. Glenn, Chief
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosure: As stated

DISTRIBUTION: ~~Partial response~~ IMAB 1037

NRC File Center	TAR r/f	JEGlenn	RECunningham
JGreeves	IMNS Central File	PCVacca	RRBellamy, RI
DCollins, RII	JGrobe, RIII	GYuhas, RV	MShanbacky, RI
JKinneman, RI	FCostello, RI	CHosey, RII	GMMcCann, RIII
BPrange, RV	MLamastra	RFonner, OGC	NMSS r/f
JPelchat, RII	LJCallan, RIV	VLMiller, GPA/SP	WFisher, RIV
JRicci, AEOD/TTC	CCain, RIV	LWCamper, IMAB	BJHolt, RIII
JPiccone, IMAB	JJohansen, RI	FCombs, IMOB	JPotter, RII

OFC	IMAB	IMAB	IMAB	IMOB				
NAME	TTaylor	MLamastra	JEGlenn	FCombs				
TE	12/30/92	12/5/92	12/5/92	12/ /92				

g:/imab1037.t:t

B/18

List of Questions for Applied Health Physics, Inc.

1. We have several questions regarding your waste handling procedures, as described below. In your response, you should address exposure of personnel in handling the waste.
 - a. Describe your procedures in more detail for receipt of waste from clients. Indicate if the waste is prepackaged by the client, or if packaging is done by Applied Health Physics. If the waste is prepackaged by the client, describe how it is packaged and labeled. Also, describe the instructions clients are given in packaging the waste. Indicate how waste is segregated by radionuclide or half-life category. Describe any waste processing performed by your staff.
 - b. Specify the typical radionuclides and activities in the radioactive waste that will be held for decay.
 - c. Specify the typical generators of the waste, such as hospitals or research facilities.
 - d. Describe how you determine the radionuclides that are in the waste.
 - e. Estimate the volume of waste you expect to receive from customers.
 - f. Describe your procedures for ensuring the amount of waste on site does not exceed the authorized possession limits.
 - g. You should describe how you repackage waste which, upon monitoring prior to disposal, still contain radiation levels detectable from background.
 - h. Describe procedures for ensuring that waste from different facilities are not intermixed.
2.
 - a. You stated in your letter that a separate storage area has been designated within the "warehouse" facility for storage of waste. Submit a drawing of the storage area, identifying the various waste storage areas in relation to one another. You should include the dimensions of the storage area in your drawing to demonstrate that the area is large enough to accommodate the projected volume of waste.

- b. Identify all surrounding areas to the storage area, and specify the distance of each of these areas to the storage area. Identify any population areas and nearest residences.
 - c. Also, in your letter, you stated that "a separate storage area has been designated within the "warehouse" facility, located on the north side of the Applied Health Physics building." In your environmental report, you stated "drums will be stored in the Applied Health Physics warehouse attached to the southwest side of the building." Please clarify the differences in location.
3. Indicate the location of the building air ventilation exhaust, including the height of release, and specify the flow rate.
 4. You stated that waste will be surveyed with a GM detector or a sodium iodide detector to assure that there is no radioactivity above the background level.

Provide detailed survey procedures to be followed in surveying waste prior to disposal. The procedures should demonstrate that the instrumentation is sensitive enough to detect the various radionuclides in the waste. You should provide detailed procedures for determining the minimum detectable activity of the instrumentation. In particular, you should provide procedures for detecting radiation levels from radionuclides which are beta emitters.

5. You stated that monitoring will be performed without interposed shielding (i.e. the storage container will be opened and the contents monitored). You should verify that the contents will be removed so that all surfaces of the waste package can be surveyed. The information you submitted implied that only the top of the waste is surveyed.
6. Provide the following information regarding storage of the waste:
 - a. storage of barrels to ensure a stable configuration and the ability to perform visual inspection of the contents and access, if necessary;
 - b. the frequency of inspecting the barrels for integrity, quarterly as a minimum;

- c. procedures for handling damaged barrels; and
 - d. procedures for tracking waste from placement into storage to final disposal of the waste.
7. Please indicate if you will compact waste. If so, submit specific information related to the compactor, including manufacturer and model (including a manufacturer brochure if available); specific information related to operating parameters such as ventilation flow rate, cycling time, and volume of waste compacted per unit time; and volume reduction factor.
 8. You provided information on the documentation that will be maintained for each storage container of waste. The result of the survey, as well as the background radiation level, should be included in this documentation. Please verify that this information will be included in the documentation.
 9. Discuss your plans for handling potential accidents, including an assessment of the consequences of any accidents.
 10. Verify that waste will not be held longer than 5 years.
 11. You stated that "No Federal permits, licenses, approvals or other entitlement must be obtained in connection with the proposed action." Please indicate if you will be receiving any waste containing other hazardous material in addition to radioactive material which would classify the waste as mixed waste. If so, it may be necessary for you to obtain a permit from the Environmental Protection Agency for storage of this waste. Please discuss this in more detail.
 12. You stated in your letter, dated August 27, 1992, that an integrated fire protection system is being installed in the warehouse. Please indicate when you anticipate the completion of the installation of the system. Please verify that you will notify us when the system is installed.