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October 23, 1992

Robert J. Doda
State Agreements Program
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Dear Mr. Doda:

We continue to review the licensing jurisdiction situation with regard to radioactive material used in and around the Texas A and M University Nuclear Science Center, located in College Station, Texas. Our staff recently completed a site visit with a U.S. Nuclear Regulatory Commission (NRC) Regional Inspector, wherein operations and the physical plant were reviewed and the character of other operations conducted on or near the site was ascertained.

Review of the material and discussions with staff have also led to further documentation searches which have been fruitful. It now appears possible to come to some conclusions regarding the nature and interactions of various operations, to ascertain Agency intent with regard to these facilities, and to propose solutions to our mutual jurisdictional problems in this instance.

First, there seems to be ample indication that as a non-power reactor facility, the site can be defined only as a whole. This is borne out in the spread of directly related reactor operations across the entire physical plant site, to include outlying storage and control of irradiated parts and fuel, location of vital systems for cooling and mechanical support in outlying buildings, remote siting on the property of the waste water tank farm and solid waste storage, and significant ventilation and reactor control ties to the Laboratory Building. This site definition is also codified in the August 1967 Safety Analysis Report for the Nuclear Science Center (NSC) on page 4: "...the entire area inside the perimeter fence of the NSC is designated as a 'Restricted Area'."

Second, discussions and a meeting held in Austin in the past to resolve this issue have clearly established the intent of both our agencies to give primary consideration to a physical division of responsibility at the site fence line, with some minor modifications (see your memo of February 29, 1988, attached). Subsequent implementation of the recommendations of the meeting by your Agency in the form of guidance to NRC inspectors is entirely consistent with this position, but emphasizes that other sites may need special consideration. The generic guidance to which this second version refers (Inspection Manual Chapter 2882, Appendices 1 and 2, issue date December 5, 1983, also attached) is also consistent with this position, and in cited examples appears to strengthen the position (see, for example, Paragraph g, Page A1-3, where the location within the facility is cited, and Paragraph 4, Page A2-1, where use relating to on-site functions and operations is cited).

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Third, the most workable, most easily enforced solution to the jurisdiction problem also appears to be the site boundary as described by the SAR, that is, the fence line. Two illustrations of the need for this can be quickly described. First, ventilation interconnection with the Laboratory Building has the potential for allowing contamination incidents in outlying locations to effect reactor operations, in the matter that an incident in the chemistry laboratory in the Reactor Building did a few years ago (see letter of January 28, 1987 from Mr. Feltz, attached). Second, experiments conducted in the Reactor Building with non-reactor material, such as the high level gauge calibration procedure using 100 Ci of ^{137}Xe , potentially impact Reactor Building safety systems and should be evaluated for consistency with reactor operations under the Part 50 license. With state licensure of these operations, interaction with the reactor, its safety systems, and its technical specifications simply cannot be addressed.

Activities covered under the NRC licensure of the site would clearly need to be broadened. Your Agency has already taken a step in that direction by authorizing separately, under an "E" license, the distribution of irradiated gemstones. This same approach, i.e., specific licensure, needs to be expanded to encompass the other distribution (and production) activities conducted at this site. Some operations have significant on-going radiologic implications, such as the high radiation areas necessary for the fission fragment production of filter media. The control of surface and airborne contamination from this process could potentially impact Reactor Building room and air monitors and requires care in analysis and surveillance.

One "on-site" area will need to be addressed that may require action of a different sort. The front of the Calibration Range Building is coincident with and substitutes for the site fence, but the building extends away from the reactor, in a direction off site. Access is only from the site, however. Originally established to provide in-door storage of sources for an out-door calibration range, the building now is also involved with temporary storage of highly irradiated samples (because it has appropriate shielded lockers) and sorting, processing, and storage of low-level solid reactor operations waste (gloves, clean-up materials, and the like). Thus, access is only through the site restricted area, but stored within the building is material from the reactor and material (calibration range sources) for support of operations completely outside those of the reactor. Separation of operations physically (other locations could be used for waste processing) is an alternative, as is provision of separate access to the building outside the reactor restricted area. However, the building and its operations would be a minor addition to any license which encompassed all of the reactor and laboratory operations conducted on the site, and the building should be included on such a license, if minimum disruption of current licensee activities is important.

We invite your written comments on the situation and proposed solutions that we have described. Our staff would be available to meet with any of your staff at your discretion to assist in final resolution. For our part, prudence would seem to dictate that we retain, for the present, the authorizations on the Texas issued license, which does not include activities inside the fence line of the site. Please contact Mr. Jon R. Sharp of my staff if you have any questions regarding this matter.

Yours truly,

David K. Lacker
David K. Lacker, Chief
Bureau of Radiation Control

Enclosures