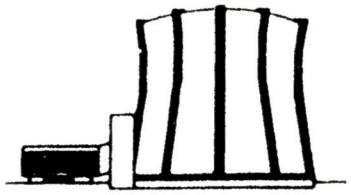
TEXAS ENGINEERING EXPERIMENT STATION

TEXAS A&M UNIVERSITY
COLLEGE STATION, TEXAS 77843-3575



NUCLEAR SCIENCE CENTER
409/845-7551

January 26, 1998

98-0010

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington DC 20555

Subject: Request for Amendment to Technical Specifications of Facility License R-83

Reference:
1. Texas A&M University Nuclear Science Center Reactor License R-83
2. 10 CFR 20.1301(2)
3. Safety Evaluation for the Production of Iodine-125 at the Texas A&M University Nuclear Science Center (attached)

Dear Sir:

The Texas A&M University System Nuclear Science Center has signed a proprietary agreement with a company to produce commercial quantities of Iodine-125. The bulk of the isotope used in the United States is currently produced in Canada. The proprietary content of this application is necessary for a complete regulatory review. The sponsoring company has requested that all information regarding the design be treated as confidential and "Need to Know."

It is requested that the Technical Specifications of R-83 be changed to include the following, inserted as paragraph 3.6.2(c):

> Each experiment used for the production of Iodine-125 shall be controlled such that the total inventory of Xenon-125 in an individual experiment is no greater than 1000 Curies.

The value of 1000 Curies is based on a safety analysis performed at the Nuclear Science Center that calculated exposures to the public to be less than 0.5 rem per year (10 CFR 20.1301) from an accident. The value of 1000 Curies gives a comfortable margin of safety and would result in an Emergency Action Level that requires Alert classification. The 1000 Curies of Xenon-125 reduces the inventory of Iodine -125 available to approximately 10 Curies per experiment.

The facility Emergency Plan is being updated to include responses to an accidental release of Xenon-125 and the implementing procedures will be approved at a scheduled Reactor Safety Board meeting in mid-February.

Please contact me if you have any questions or concerns.

Sincerely,

Sean O'Kelly
Assistant Director

SOK/tl

Attachment: (1) Safety Evaluation

xc: Theodore S. Michaels NRR/DRPM/PDND
12110/Central File