SHUCLEAR REGULS

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

June 8, 1988

Project No. 678

FROM:

MEMORANDUM TO:	Lester S. Rubenstein, Acting Director
	Standardization and Non-Power
	Reactor Project Directorate
	Division of Reactor Projects III,
	IV, V and Special Projects

Alexander Adams, Jr., Project Manager Standardization and Non-Power Reactor Project Directorate Division of Reactor Projects III, IV, V and Special Projects

SUBJECT: SUMMARY OF AIR FORCE VISIT

On May 26 I attended a meeting of the Air Force Terrestrial Nuclear Reactor Safety Study Group at McClellan AFB. The most lasting impression is one of professionalism and the commitment of manpower and resources to do the job right. The facility is under construction with the reactor a few percent complete. We will be requested to review and comment on the updated SAR that construction is based upon. This request should occur this fall. The scope of the review (and hence our resource commitment) has not been determined by the Air Force as of this date.

The current issue that is of greatest interest to the Air Force is the computerized control console. As you are aware, we are currently working on this and should address their initial questions by the end of June. They also requested interpretation of 10 CFR 70.24 which states requirements for criticality monitors.

There are some interesting aspects of the Air Force licensing process that I would like to comment upon.

- They wrote their PSAR based on our guidance for power plant licensing. The result is a well written book that suffers from some amount of overkill.
- The reactor is near the base main runway. A plane crash was addressed by
 a statistical analysis that showed that the probably of a hit was 10⁻⁸ per
 year. I can't recall this approach being used for a non-power reactor accident
 before.
- 3. We look at what has been approved in the past as part of the basis for the determinations we make. They started with a clean sheet. For example, they did detailed calculations to show that a TRIGA could run at 1 MW without boiling in the natural convection cooling mode. The SAR will serve as an additional reference for our work on TRIGAs.

8806300190 880608 PDR PROJ 678 A PDR

- 4. They conclude that the reactor is inherently safe and that a scram system is not required to prevent exceeding the safety limit, but the facility has been designed with the normal TRIGA scrams.
- 5. One of the accidents they look at is the fuel cladding failure of all the fuel elements at once. We normally assume a single element failure.

The facility is expected to be placed in service in early 1989. If it works as planned, other facilities may be constructed.

1 elital ala

Alexander Adams, Jr. Project Manager Standardization and Non-Power Reactor Project Directorate Division of Reactor Projects III, IV, V and Special Projects Office of Nuclear Reactor Regulation

cc: T. Murley J. Sniezek F. Miraglia D. Crutchfield 4. They conclude that the reactor is inherently safe and that a scram system is not required to prevent exceeding the safety limit, but the facility has been designed with the normal TRIGA scrams.

- 2 -

5. One of the accidents they look at is the fuel cladding failure of all the fuel elements at once. We normally assume a single element failure.

The facility is expected to be placed in service in early 1989. If it works as planned, other facilities may be constructed.

151

Alexander Adams, Jr., Project Manager Standardization and Non-Power Reactor Project Directorate Division of Reactor Projects III, IV, V and Special Projects Office of Nuclear Reactor Regulation

cc: T. Murley J. Sniezek F. Miraglia D. Crutchfield

Distribution:	
Central File	OGC-Rockville
NRC & Local PDRs	EJordan
PDSNP Reading	JPartlow
LRubenstein	ACRS (10)
AAdams	
DOCHO - ANADA	cute)

PDSNP AAdams: Ts 06/7/88 AD: PDS/IP LRubenstein 06/8/88