OCT 23 1986

Docket No: 50-170

Defense Nuclear Agency
Armed Forces Radiobiology Research Institute
ATTN: Colonel James Conklin, MC, USAF
Director
Bethesda, Maryland 20014

Gentlemen:

Subject: Inspection No. 50-170/86-01(OL)

This refers to your letter dated April 29, 1986 in response to our letter dated March 5, 1986.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:

Edward C. Wenzinger, Chief
Project Branch No. 3
Division of Reactor Projects

cc w/encl:
M. Moore, Reactor Facility Director
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of Maryland (2)

bcc w/encl:
DRP Section Chief
D. Coe
OL File 12.0
Region I Docket Room (with concurrences)

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Dudley/bc	Keller	Kister	Elsasser	Wenzinger
10/16/86	10/17/86	10/20/86	10/20/86	10/21/86

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DEFENSE NUCLEAR AGENCY
ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE
BETHESDA, MARYLAND 20814

DIR
29 April 1986
01604

United States Nuclear
Regulatory Commission
Mr. Edward C. Wenizinger
Project Branch No. 3
King of Prussia, PA 19406

Dear Sir:

This letter is in reply to NRC examination report number 50-170/86-01 conducted by Mr. Noel Dudley on 6 January 1986. Mr. Dudley's report contains statements about the facility that do not accurately describe conditions in the facility. This letter is the requested reply describing measures taken to assure reactor safety, services, and fire prevention during the pending construction activities. The Armed Forces Radiobiology Research Institute's comments concerning the NRC report (#50-170/86-01) are discussed beginning with page 3, number 3, "Summary of NRC comments made at exit interview," followed by license examination report, item number 1, "Summary of generic strengths of deficiencies noted on oral examinations" (see enclosure).

For information on matters discussed in this letter, the point of contact is the Reactor Facility Director, Mr. Mark Moore. He can be reached at the letterhead address or on telephone number (301) 295-1290.

Sincerely yours,

for JAMES J. CONKLIN
Colonel, USAF, MC
Director

Enclosure:
as stated

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AFRRI COMMENTS ON NRC REPORT 50-170/86-01

The following are responses to NRC Examination Report No. 50-170/86-01:

1. In item 3, paragraph 2, Mr. Dudley implies that fire extinguishers within the reactor facility had not been checked for 5 months. The day following his visit a survey showed that of the extinguishers in the facility, one was dated Sept 1985, and one dated Nov 1985. All the rest were dated Dec 1985 (the Jan check had not been completed at the time of the operator's exam). In fact, the longest unchecked span noted on the unit tags was 3 months. The base (NMCNCR) fire department was in the process of having a special hydrostatic testing done (off base) on all units in AFRRI, not just the reactor, and this would require about 6 months to complete as the testing is accomplished there will be months shown as not being checked on the tags. Follow-up checking revealed that the two units that Mr. Dudley had seen were returned from the pool of tested units and had not been back long enough for a date in the regular monthly check. All facility units have been checked and are current.

2. Item 3, paragraph 3, and item 4, paragraph 1, concern the same issue. The operator licensing examiner viewed areas peripheral to the reactor area (equipment rooms) that were under construction and undergoing removal and installation of equipment, including the drilling of concrete and the unpacking and placement of electrical components. At no time did the Reactor Director state that he had no control over the areas. On the contrary, it was explained to Mr. Dudley that at that time, the equipment rooms were involved in heavy construction work and as work progressed, debris would be removed consistent with safe work practices. At no time did the area or materials in the area present any safety hazard to personnel or to the reactor systems. The following week, the areas in question were thoroughly cleaned and prepared for the next phase of construction. It should be noted that earlier and later inspections, including an unannounced operational inspection (No. 50-170/85-03) shortly before and a special security inspection shortly after (No Report No. to date) the license exam by operational inspectors have found this facility to have excellent housekeeping over the course of many years. Quoting from Report 50-170/85-03 "Facility tour . . . The areas were clean, free of debris and well maintained."

Construction on this facility will continue for approximately 6 months. During this time the reactor staff will perform housekeeping inspections on a frequent basis to ensure maximum area cleanliness and that construction will not impact the safety of the reactor or reactor systems.

3. We would like to point out that Item 1, paragraph 3 has nothing to do with the exam given to the reactor trainees. Also, it does not indicate generic deficiencies on the part of the trainees. Instead, it is simply an opinion on the part of the examiner.

4. Item 3, paragraph 4, and item 4, paragraph 2, again concern the same issue. Mr. Dudley has relayed a situation in his report concerning management controls for facility maintenance and modifications that is inaccurate. All items relating to reactor safety, reactor systems, reactor modifications, and reactor maintenance including records and procedures are current and available in the facility. The examiner, Mr. Dudley, did not ask to see any of these documents. The reactor staff has a group of support test equipment, including voltmeters, current meters,

and electrometers, that are used in reactor calibration. This equipment is sent to an Institute calibration facility and their either calibrated or sent out for calibration. This is accomplished under Institute procedures, not reactor facility procedures. When the unit is calibrated, it is returned with a calibration sticker in place on the unit. If a unit is out for calibration, a backup unit is always available in the facility; if the facility does not have a spare unit, one is borrowed from the calibration group. The records or "tracks" of any reactor system, safety or otherwise, can be readily produced in the facility, the support equipment records are available in the appropriate area. AFRRI's record of previous inspections both NRC, and independent audit by the Office of the Inspector General, for example 50-170/85-03 Item 5, IG Inspection report, 21 June 1985 and IG Inspection 17 June 1983 TAB G, has shown the maintenance system used in the reactor facility to be more than adequate. This system ensures that the facility maintenance and modifications are performed in a planned manner that guarantees the safety of the reactor and reactor systems.

On the issue of as-built prints available in the facility as referenced in Item 3 paragraph 4, AFRRI contains far more than just a reactor facility. The AFRRI Logistics Department (LOGF) maintains the building proper and the installed building equipment. Many changes have been made over the last 20 years. These changes are documented on building prints located in the LOGF office. However, because of the large mass of documentation, locating a particular item can sometimes be difficult for a newly licensed operator. AFRRI construction, primarily on the facility air and ventilation system, is being conducted in phases. A complete set of building plans is available as each phase of construction is completed. The scheduled completion date for the reactor area is September 1986. This construction was submitted to the NRC as a planned modification in 1983. It was approved in Aug 1984 with the new facility SAR. When complete, these modifications will be shown on a complete set of current as-built drawings. They will combine the drawings of the last 20 years, combining the various historical changes and the current modifications into one set of plans. These plans will be available in the reactor facility for immediate use by the facility staff as each phase of construction is complete.

AFRRI believes that the management controls for facility maintenance and modifications are adequate to ensure the safety for the reactor and associated equipment.

5. As a last point, item 5 indicates changes made to the answer key used in correcting the exam. It may be interesting to note that a significantly greater number of comments were given to the examiner. Most of these were not included on the comment page. Since they represent, from the facility point of view, inconsistencies in the exam as written, they should be included in the comment section whether used by the examiner or not.