UNIVERSITY OF CALIFORNIA, LOS ANGELES UCLA

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RESEARCH & OCCUPATIONAL SAFETY/RADIATION SAFETY
A8-060J CENTER FOR THE HEALTH SCIENCES
LOS ANGELES, CALIFORNIA 90024

September 20, 1988

Mr. Alexander Adams, Jr., Project Manager
U.S. Nuclear Regulatory Commission
Standardization and Non-Power Reactor Directorate
Division of Reactor Projects -
III, IV, V and Special Projects
Office of Nuclear Reactor Regulatory
Washington, D.C. 20555

Ref. Docket Number - 50-142

Dear Mr. Adams:

This letter is our response to your letter (no date) and the accompanying two questions received here on September 1, 1988, on the UCLA Phase I nuclear reactor decommissioning (see Addendum).

I am greatly concerned about the time element for the review of the Phase I report and the consequent burden on our work here, while we await the approval order for removing the remaining reactor structures (see June 10, 1988 letter on final or Phase II Plan) and decommissioning the Fac'lity.

The Facility is not in use and we cannot schedule final decommissioning, invite contractor participation, perform and oversee the dismantlement work, and restore the facility to use. Further our own involved safety staff members have other long-term duties, particularly on tracking new medical construction and assuring safety in medical research and clinical procedures.

We would greatly appreciate your early attention to our Phase II request.

Sincerely yours,

James E. McLaughlin

James E. McLaughlin
Acting Director
Research and Occupational Safety

JEM/cm

Enclosure

cc: Distribution List Attached

A020 1/1 Add: NRR/DREP/RPB Ltr Encl 1 1

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

On September 19, 1988, before me, the undersigned, a Notary Public in and for said County and State, personally appeared James E. McLaughlin, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal

Virginia Savoie

Notary Public in and for said
County and State

University of California
at Los Angeles

Docket No. 50-142

cc: Mr. Neil C. Ostrander, Manager
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ADDENDUM

Question 1

Please provide additional information on the disposition of reactor core components, and contaminated and/or activated material removed from the facility during Phase I. What radiation levels for systems, structures, and components was used for release of material from the UCLA facility (Reference Reg. Guide 1.86).

Response 1

Reference is made to the Atomic Safety and Licensing Board order dated November 8, 1985 (ASLPB 85-506-01). Section 2.6 and subsections defined radioactive or contaminated items or groups of items as those that:

1. emit radiation of 5 microrem or more per hour above background at one meter from any unshielded surface, and

2. contain surface contamination levels in excess of those given in Regulatory Guide 1.86.

Section 2.7 directed that no material in the Facility, following dismantling should be in excess of (or equal to) the limits of Section 2.6.

During Phase I, all material removed from the Facility (after the irradiated fuel was removed before Phase I began) fell into one of the following categories:

1. Radioactive material waste (4 concrete shield blocks, graphite chunks and metal pieces) was transferred to the Richland, Washington burial site according to instruction from the site operator and the State of Washington.

2. Radioactive material (graphite and lead from the reactor core vicinity was transferred to the Texas A & M University.

3. Non-radioactive material (lead bricks, concrete shielding blocks, office furniture and file cabinets, and junk was either transferred to another use or disposed as ordinary trash, provided it was below the limits in the board order.

Some of these material transfers were identified in Section 2 of Attachment 2, of our April 23, 1988 communication to you on the Phase I work.

Monitoring to test conformance to the radiation/contamination criteria was performed by the assigned health physicist, with assistance from a reactor engineer and former operator of the reactor.

This procedure was always followed. Note that these same criteria are planned for the final or Phase II work; the Radiation Safety Office will have an overview/audit measurement function and the final dismantling organization will perform all routine dismantling and monitoring work.

Question 2

The report indicates that the highest individual dose during Phase I was 1.24 Rem. What activities resulted in this dose?

Response 2

The dose equivalent of 1.24 rems was received by the Health Physicist assigned to the reactor decommissioning during Phase I. Due to a shortage of qualified personnel the Health Physicist was principally involved in the disassembly of the reactor core and packaging of materials for transport. Additionally, he personally monitored and supervised all activities and directly controlled the issuance of Radiation Work Permits during Phase I dismantlement.

Most of his dose equivalent was received during the months of July, August, September of 1986, and March of 1987. The activities contributing to his radiation exposure during the months of 1986 resulted primarily from:

a. Removal of graphite from the core region,

b. Removal of lead bricks form the core region,

c. Removal of lead shot from the core region,

d. Removal of control blades and shrouds,

e. Boxing of graphite for shipment,

f. Boxing of lead for shipment,

g. Removal of piping and rod shaft bearings, and

h. Removal of protruding channel associated with the rod drive support structure.

During March of 1987, the reactor decommissioning staff, supervised by the Health Physicist, monitored, analyzed and packaged the metallic components removed from the former reactor core for transport to the Richland, Washington Land Burial site.