

November 20, 2009

Mr. Terrance G. Alexander, Executive Director
Occupational Safety & Environmental Health
University of Michigan
Campus Safety Services Building
1239 Kipke Drive
Ann Arbor, Michigan 48109-1010

SUBJECT: REPORT OF OCTOBER 23, 2009, OPEN MEETING WITH UNIVERSITY OF
MICHIGAN TO DISCUSS DECOMMISSIONING STATUS OF FORD NUCLEAR
REACTOR

Dear Mr. Alexander:

Enclosed is a report of the October 23, 2009, open meeting between staff of the U.S. Nuclear Regulatory Commission and representatives of University of Michigan and DeNuke Services. The purpose of the meeting was to discuss the decommissioning status of the Ford Nuclear Reactor and the University of Michigan's upcoming submittal of a Final Status Survey Plan for the Ford Nuclear Reactor.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this letter, please contact me at 301-415-5114 or kristina.banovac@nrc.gov.

Sincerely,

/RA/

Kristina L. Banovac, Project Manager
Reactor Decommissioning Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Enclosure:
October 23, 2009,
Open Meeting Report

Docket No.: 50-02
License No.: R-28

cc: University of Michigan – Ford Nuclear Reactor Service List

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1239 Kipke Drive
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University of Michigan – Ford Nuclear Reactor Service List

cc:

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Mr. Robert B. Blackburn, Manager
Ford Nuclear Reactor - Decommissioning Project
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Waste and Hazardous Materials Division
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Lansing, MI 48909-7741

Test, Research, and Training Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

OPEN MEETING REPORT

Date: October 23, 2009

Time: 2:00 p.m. – 4:30 p.m.

Place: University of Michigan
Phoenix Memorial Laboratory
2301 Bonisteel Blvd
Room 3028 (3rd floor)
Ann Arbor, Michigan 48109-2100

Purpose: Meeting with University of Michigan (licensee) to discuss decommissioning status of the Ford Nuclear Reactor and University of Michigan's upcoming submittal of a Final Status Survey Plan

Attendees: See Attachment

Discussion:

The U.S. Nuclear Regulatory Commission (NRC) Project Manager opened the meeting. The licensee presented the status of decommissioning at the Ford Nuclear Reactor (FNR) site, describing recent work that was completed and the remaining characterization and remediation activities at the site. The licensee has completed most of the remediation activities. It will continue to complete characterization of soils and areas in the reactor building and remediate these areas, as needed. The licensee noted that funding is available for completion of the decommissioning project at FNR.

The licensee expects to submit its Final Status Survey Plan (FSSP) to the NRC for review and approval in January 2010. The licensee will inform the NRC of any schedule changes. The licensee plans to submit one complete FSSP for NRC review, rather than submitting individual portions of it for review. The licensee will submit the FSSP as a license amendment request, requesting approval of the FSSP and incorporation into the decommissioning plan (DP), which was approved on June 26, 2006, via Amendment No. 50 to License No. R-28 for FNR.

The FNR DP was approved with license conditions, which require the licensee to submit reports of all characterization surveys performed that were not part of the DP application. The license conditions also require the licensee to submit a complete FSSP for NRC review and approval, prior to performing the final status survey (FSS). The FSSP will need to address areas and topics that were not completely described in the DP and provide information and details regarding proposed clean-up levels and the proposed FSS of the site. NRC and licensee staff discussed the open items in the FNR DP that will need to be addressed in the upcoming FSSP.

Enclosure

Regarding the licensee's proposed use of screening values, the licensee will need to demonstrate in the FSSP that the particular site conditions (e.g., physical and source term conditions) are compatible and consistent with the DandD model code assumptions and default parameters. The licensee may use the RESRAD model code to calculate derived concentration guideline levels (DCGLs) for any radionuclides of concern that are not included in NRC's list of screening values or are not included in the DandD code. NRC staff also noted that the licensee needs to discuss the reasonably foreseeable land use for the site in the FSSP, as the DP does not address this.

The licensee will need to calculate DCGLs for any volumetrically contaminated surfaces, embedded pipes, or contaminated subsurface soils. The licensee noted that it has bored most of the embedded pipe out of concrete walls and floors and plans to remove the remainder of the embedded pipe.

The licensee will also need to discuss subsurface soils and groundwater in the FSSP. The licensee will provide the characterization results from the reactor pool and any leakage pathways, such as cracks in the foundation under the pool. The licensee will also submit characterization data for the concrete floor beneath the reactor core and a demonstration that neutron activation of the soil beneath the reactor pool did not occur. The licensee will also need to provide all groundwater sampling and characterization data that was not included in the DP. The licensee will need to include discussion in the FSSP confirming that groundwater contamination is not an issue at the site.

NRC staff discussed its responsibilities under the Memorandum of Understanding (MOU) with the U.S. Environmental Protection Agency (EPA) on consultation and finality on decommissioning and decontamination of contaminated sites. Per the MOU, the staff must consult with EPA if the planned level of residual soil concentrations at a site exceeds the MOU consultation trigger concentrations. NRC must also consult with EPA if radionuclide concentrations in groundwater exceed EPA's maximum contaminant levels (MCLs) found in 40 CFR 141. When NRC receives the licensee's FSSP, it will compare: (1) the proposed soil clean-up values in the FSSP to the MOU trigger concentrations; and (2) the radionuclide concentrations in groundwater to EPA's MCLs, and consult with EPA if needed per the MOU.

Regarding "as low as is reasonably achievable" (ALARA) considerations, the licensee does not need to demonstrate ALARA for screening values used for building surfaces or surface soils. However, the licensee must demonstrate ALARA for instances where site-specific DCGLs are used.

NRC staff also discussed the other areas that the FSSP will need to address, such as: A detailed FSS design; background contributions for all reference areas and materials; adverse surface conditions that may result in underestimating activity by direct measurements; and radionuclide ratios for different areas and materials at the site.

The following action items were identified during the meeting: NRC will provide the licensee with: (1) NRC guidance on radionuclides or exposure pathways that can be considered insignificant and eliminated from further consideration; (2) the Agencywide Documents Access and Management System (ADAMS) Accession No. for NUREG/CR-5512, Vol. 4, "Comparison of the Models and Assumptions Used in the DandD 1.0, RESRAD 5.61, and RESRAD-Build 1.50 Computer Codes with Respect to the Residential Farmer and Industrial Occupant Scenarios Provided in NUREG/CR-5512"; (3) a copy of the DandD software on a CD; (4) an electronic copy of the EPA/NRC MOU; and (5) an approximate estimate of the time it takes from the licensee submittal of the FSS report to license termination. NRC provided these items to the licensee after the meeting.

Attachment: Meeting Attendees

MEETING ATTENDEES

Date: October 23, 2009

Topic: Meeting with University of Michigan to discuss decommissioning status of Ford Nuclear Reactor

NAME	AFFILIATION	PHONE NUMBER / EMAIL ADDRESS
Kristina Banovac	NRC/Headquarters	301-415-5114, kristina.banovac@nrc.gov
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Christine Lipa	NRC/Region IIII	630-829-9834, christine.lipa@nrc.gov
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Terry Alexander	University of Michigan/ Occupational Safety & Environmental Health (OEH)	734-647-2253, tgalex@umich.edu
Mark Driscoll	University of Michigan/OSEH	743-647-2251, drisc@umich.edu
Philip Simpson	University of Michigan/Ford Nuclear Reactor	734-216-7173, phils@umich.edu
James Berger	DeNuke Contracting Services	865-387-1282, jberger@denuke.com
Curt Smitka	University of Michigan/Office of the Vice President for Research	734-936-2681, cusmitka@umich.edu

Attachment