United States Government

memorandum

JUL 2 3 1985

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DATE: REPLY TO

DOE F 1325.8

ATTN OF:

SUBJECT:

Federal Register Notice Regarding Certification for Unrestricted Use of the Sodium Reactor Experiment Complex (SRE) and Hot Cave Facility (Bldg. 003), Santa Susana Field Laboratory, Chatsworth, California

TO:

William R. Voigt, Jr. Acting Director Office of Terminal Waste Disposal and Remedial Action

I am attaching for your signature the Federal Register Notice of Unrestricted Use and the original DOE-AD-9 (1325.10) for the subject facilities (SRE and Bldg. 003).

The SRE Facility at the Santa Susana Field Laboratory in Ventura County, California, was built between 1955 and 1957. The 20-MWt sodium-cooled, graphite-moderated, thermal reactor was operated from April 1957 through February 15, 1964, by Rockwell International's Energy Systems Group. During the operational life of the reactor, induced radioactivity was produced by neutron activation of surrounding material. In addition, mixed fission products were released into the reactor primary sodium coolant system when a fuel element ruptured. From 1964 to 1976, the reactor was in a protective storage mode with routine surveillance.

Decontamination of the SRE began in 1976 and was completed in 1982 by Rockwell personnel. At the request of DOE Office of Operational Safety (OOS) and in accordance with their programmatic concurrent and post-remedial-action responsibilities, the Argonne National Laboratory (ANL) Radiological Survey Group (RSG) conducted a series of radiological measurements and analyses at SRE between November 1979 and September 1982, to survey for residual radioactive contamination.

During the final overview surveys in the summer of 1982, 46 locations with elevated activity were detected with survey meters. Of these areas, 27 had contamination in excess of acceptable limits; however, all the areas subsequently were cleaned to below detectable limits before ANL/RSG completed their overview activities.

Building 003 on the Santa Susana site was used in conjunction with the SNAP Program and contained a highly shielded area designed for remote manipulation of radioactive materials. Such facilities are commonly referred to as "hot caves."

During the SNAP Program, fuel burnup samples were analyzed and irradiation experiments were evaluated in the Building 003 hot cave. Use of the hot cave facility ended when the SNAP Program was terminated in 1973. Subsequently, the Building 003 facilities were declared excess (i.e., surplus facilities) and were decontaminated and decommissioned during the first half of calendar year 1975. At that time, the building was given a preliminary release. In 1981, a post-remedial-action survey of Building 003 was conducted at the request of DOE by RSG of the Occupational Health and Safety Division, Health Physics Section of ANL. Consequently, additional decontamination was conducted by Rockwell International. A final post-remedial-action survey was conducted by the ANL-RSG during April 1982, and those areas in Building 003 that had been found contaminated in 1981 were now found to be free of detectable radioactive contamination.

The final ANL analyses of both these sites indicate that the sewer lines from these areas may have elevated levels of contamination. However, it appears from the data and reports by ANL that the levels of contamination are low in comparison to both the FUSRAP/SFMP proposed criteria in use during this decontamination effort and the criteria agreed upon between the State of California and DOE/SAN. Furthermore, there is no evidence that these systems as presently used pose a radiological problem to either personnel or the environment. Therefore, there does not appear to be a need to place any restrictions on the sewer lines from the SRE or Bldg. 003.

Based on the reviews of the final remedial action project surveys, both the DOE/SAN and the DOE Division of Remedial Action Projects have concluded that both these facilities do not pose a threat to either personnel or the environment and are suitable for unrestricted use.

This Federal Register Notice will be published in the Federal Register and will also be included in the docket containing the certification statement and backup material for this unrestricted release. The docket will be displayed in the DOE public document room at DOE/SAN, Oakland, California, and DOE/HQ, Washington, D.C., in accordance with DOE Order 1324.2 (Disposal Schedule 25).

> John E. Baublitz, Director Division of Remedial Action Projects Office of Terminal Waste Disposal and Remedial Action Office of Nuclear Energy

2 Attachments

bcc: A. Whitman, NE-24 Aerospace

NE-73 (4) NE-24 Whitman

NE-24: AWhitman: ph: 353-5439:7/23/85: IBM: 199/7:2.5.2

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U.S. DEPARTMENT OF ENERGY SAN FRANCISCO OPERATIONS OFFICE MAGNETIC FUSION AND NUCLEAR DIVISION

CERTIFICATION FOR UNRESTRICTED USE OF THE SODIUM REACTOR EXPERIMENT(SRE) COMPLEX AND THE HOT CAVE FACILITY(BLDG. 003)

AGENCY: San Francisco Operations Office, Department of Energy

<u>ACTION:</u> Notice of Certification of Decommissioned Facilities for Unrestricted Use

<u>SUMMARY:</u> The Department of Energy has completed the radiological surveys and has taken remedial actions to decontaminate and decommission DOE contaminated areas that were found in the SRE complex and Bldg.003. The Department, through the San Francisco Operations Office, has issued the following statement:

STATEMENT OF CERTIFICATION FOR UNRESTRICTED USE OF THE SRE COMPLEX AND BLDG. 003 AT ROCKWELL INTERNATIONAL'S SANTA SUSANA FIELD LABORATORY, CHATSWORTH, CALIFORNIA

The Department of Energy, Office of Nuclear Energy, Office of Terminal Waste and Remedial Action, Division of Remedial Action Projects and the Department of Energy San Francisco Operations Office have reviewed the remedial actions and the radiological survey reports of the SRE complex and Bldg. 003. Based on this review, DOE certifies that there is no evidence the facilities pose a radiological threat to either personnel or the environment. Therefore, the SRE complex and Bldg. 003 are removed from the DOE radiologically contaminated Surplus Facilities Program and are suitable for unrestricted use.

For further information contact:

Mr. Leonard Lanni, Project Manager Magnetic Fusion and Nuclear Division U.S. Department of Energy 1333 Broadway Oakland, California 94612 Telephone:(415)273-6444 or FTS:536-6444

SUPPLEMENTARY INFORMATION:

The Department of Energy has established a program to characterize and when necessary, correct the radiological conditions of DOE contaminated surplus facilities. The objective of the program is to insure that these surplus facilities and any associated properties in their vicinity are within or below the radiological guidelines established by the ANSI Standard N13.12 and the NRC Regulatory Guide 1.86. The SRE complex, located at the Rockwell's Santa Susana Field Laboratory, Chatsworth, California, consists of a series of buildings used to support the Atomic Energy Commission activities to demonstrate the feasibility of a high temperature sodium-cooled graphite-moderated reactor as the heat source for a central power station.

The Hot Cave Facility, Bldg. 003, located at the Rockwell's Santa Susana Field Laboratory, was used to analyze fuel burn-up samples for the System for Nuclear Auxillary Power (SNAP) Program and the evaluation of various irradiation experiments.

Radiological surveys conducted before the decontamination and decommissioning activities for the SRE complex and Bldg. 003 showed gross contamination of mixed fission products and beta-gamma emitters.

The remedial actions, including decontamination and decommissioning for both the SRE and Bldg. 003 were completed in 1982.

Based on the review of the final remedial action project report, the San Francisco Operations Office has concluded that the SRE complex and Bldg. 003 are radiologically acceptable and suitable for release for unrestricted use and are therefore removed from the Surplus Facilities Program.

These findings are supported by the Department of Energy's Certification Dockets for the SRE complex and Bldg. 003. The dockets are available for review between the hours of 8:00 a.m to 4:00 p.m. Monday through Friday (except Federal holidays) at the following locations:

- U.S. Department of Energy San Francisco Operations Office ⁻ Technical Information Center 1333 Broadway Oakland, California 94612
- 2. U.S. Department of Energy Public Document Room Forrestal Bldg. Room 1E-190 Washington,D.C 20545

Date:_____

William R. Voigt, Jr., Acting Director Office of Terminal Waste Disposal and Remedial Action DOE/HQ

(6450-01)

U.S. DEPARTMENT OF ENERGY SAN FRANCISCO OPERATIONS OFFICE MAGNETIC FUSION AND NUCLEAR DIVISION

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William R. Voigt, Jr., Acting Director Office of Terminal Waste Disposal and Remedial Action DOE/HO

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