GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, 175 CURTNER AVE., SAN JOSE, CALIFORNIA 95125



NUCLEAR FUEL

AND SERVICES

DIVISION

SPENT FUEL SERVICES OPERATION

DMD-450 Docket No. 70-1308 License No. SNM-1265

June 6, 1980

Office of Nuclear Material Safety & Safeguards Attn: R.E. Cunningham, Director Division of Fuel Cycle & Material Safety U.S. Nuclear Regulatory Commission Washington, D.C. 20555

SUBJECT: ADDITION TO PUMP ROOM AT MORRIS OPERATION

Gentlemen:

On October 4, 1979, a presentation to Leland Rouse and members of his staff was made by C.C. Herrington and H.A. Rogers of this office and T.E. Ingels of our Morris Operation. The purpose of the presentation was to inform your staff of a planned addition to the pump room at Morris Operation.

JUN 1 7 1980

Office of the Secretary Docketing & Service

At the completion of the presentation, Mr. Rouse asked that a general description of the addition be furnished for the Staff's information. The description has been delayed to accommodate engineering changes in the design of the new structure. These changes are now complete and the general description is attached. After completion of the project, appropriate revision of *Complete Safety Analysis Report for Morris Operation*, NEDO-21326C, will be made to include a description of the new facility.

Please call H.A. Rogers (408\*925-6496) or C.C. Herrington (408\*925-6385) if there are questions about this project.

Respectfully

GENERAL ELECTRIC COMPANY

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D.M. Dawson, Manager Licensing & Transportation

DMD:HAR:bn

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#### ATTACHMENT

### D.M. Dawson letter dated June 6, 1980

# GENERAL DESCRIPTION - PUMP ROOM ADDITION AT MORRIS OPERATION

#### INTRODUCTION

General Electric will construct an addition to the present pump room at Morris Operation. The pump room addition will contain equipment used in decontaminating the basin coolers and equipment to utilize heat from the basin water as an energy source to heat and cool the Main Building which includes the fuel storage area.

### Pump Room Addition Building

The pump room addition will be located near the west wall of the existing pump room (Figure 1). The addition will be a pre-fabricated steel building built on a concrete slab with outside dimensions of about 20 by 30 feet in plan (Figure 2). A space of about 4 feet will separate the addition from the existing pump room wall until erection of the addition is complete, including an enclosed walkway connecting the pump room to the addition. After the walkway is completed and the security system implemented, an opening of about 5 by 7 feet will be cut in the west wall of the pump room to connect the two rooms. A concrete pad extends along the north wall of the addition and a double door will be located in the center of this wall. This outside door will meet requirements of the physical security plan. An air conditioner compressor mounting pad is located outside the west end of the addition.

An above grade reinforced concrete vault housing a basin water-to-freon heat exchanger is located in the southwest corner of the addition. The vault will be equipped with removable reinforced concrete covers. The vault drains to a sump which may be emptied by pumping any collected water to the LAW vault. Piping between the pump room and the addition will be routed overhead, passing through the enclosed walkway and connecting to existing piping systems in the pump room.

### Systems and Equipment

A simplified schematic of the heating-cooling system is shown in Figure 3. A new pump will be installed in the existing pump room to circulate basin water through the heat exchanger located in the heat exchanger vault. Four General Electric heat pumps will be mounted on a steel rack adjacent to the heat exchanger vault. Freon is circulated from the heat exchanger and heat pumps to existing heating and cooling units located in the ventilation room of the Main Building. These units will be modified to adapt them to the new system. The heat pump system is reversible to provide either heating or cooling of fresh air entering the Main Building ventilation system.

The equipment for decontamination of the basin coolers is located in the existing pump room, and requires the connection of temporary piping arrangements when-

ever cooler decontamination is to be performed. The equipment includes a circulating pump and a stainless steel tank insulated with fiberglass and equipped with immersion heaters, an agitator, and temperature and level indicators. This tank will be moved to the pump room addition and connected to the coolers through permanent piping and appropriate valving. The circulating pump for the decontamination system will be mounted adjacent to the tank. The tank will be vented and drained to the LAW vault through existing piping. No basin water or cooler decontamination solution piping will be added outside the pump room or its addition.

The addition and the existing pump room will be air cooled by a system located in the addition. The compressor for this system is mounted outdoors on the pad at the west end of the addition.

The beneficial use of waste heat from the storage basin made possible by the heat pump system is one step in Morris Operation's energy conservation program, while the permanent connection and use of the cooler decontamination equipment will further reduce the radiation exposure of Morris Operation employees.



Figure 1 Approximate location of pump room addition

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### Figure 2 Pump Room Addition Layout



Figure 3 Heating-Cooling System - Simplified Schematic

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# SERVICE LIST - DOCKET NO. 70-1308

In the matter of General Electric's application for renewal of Materials License No. SNM-1265, copies of the documents discussed in the attached letter have been forwarded to the law firm of Mayer, Brown and Platt, 231 South LaSalle, Chicago, IL. 60604, counsel for General Electric Company, for transmittal to the service list as shown below:

Andrew C. Goodhope, Esq., Chairman Atomic Safety and Licensing Board 3320 Estelle Terrace Wheaton, Maryland 20906

. . .

Dr. Linda W. Little Atomic Safety and Licensing Board 5000 Hermitage Drive Raleigh, North Carolina 27612

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