GPU Nuclear

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Writer's Direct Dial Number:

October 8, 1982

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Control Room Habitability

This letter forwards to you our future plans on upgrading the ventilation system of our control room. As stated in previous correspondence dated February 10, 1981, the present control room does not meet the standard review plan criteria for habitability of the control room in the event of an accident. Our interim plans are as described in Attachment 1. Final modifications are planned for our Cycle 12 refueling outage. Modifications planned for the projected north side building will be installed during the outage subsequent to Cycle 12.

Should you have any questions on this subject, please contact Mr. Michael Laggart, Oyster Creek Licensing Manager, at (609) 971-4643.

Very truly yours,

Peter B. Fiedler
Vice President and Director
Oyster Creek

PBF:BH:lse
Attachment

cc: Mr. Ronald C. Haynes, Administrator
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, NJ 08731

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ATTACHMENT 1

Our revised plans in response to NUREG 0737, Attachment 1, "Information Required for Control Room Habitability Evaluation" are as follows:

(1) Control Room mode of operation, i.e., pressurization and filter recirculation for radiological accident isolation or chlorine release.

Response:

Normal Operation - The Control Room HVAC System operates continuously, providing either recirculated cool air or 100% outside air depending upon the outside air temperature. The economizer cycle is utilized during spring and fall.

Emergency Operation - Upon detection of chlorine or radiation in the outside air intake, the outside intake and exhaust dampers will automatically close. The HVAC System will be automatically brought to recirculation mode with no intake air for pressurization. Existing dampers will be replaced with bubble-tight dampers per ANSI-N509. An additional bubble-tight automatic damper will be provided in the toilet and kitchen exhaust for total isolation of the control room.

Redundancy - Single failure criteria will not be met.

Detectors - Chlorine, radiation, and smoke detectors will be provided at the outside air intake for automatic isolation of the control room. There is no makeup air required for total isolation of the control room.

(2) Control Room Characteristics

a) Air Volume Control Room:

Response:

The Control Room air volume is 45,700 cubic feet.

b) Control-Room emergency zone (control room, critical files, kitchen, washroom, computer room, etc.)

Response:

The control zone consists of the control room itself, shift supervisor's office, toilet room, kitchen, and cable spreading room.

c) Control-Room ventilation system schematic with normal and emergency air-flow rates.

Response:

Burns and Roe Drawing No. 2299-2010, R5, shows the existing normal flow rates. During emergency conditions, there will be no minimum makeup air. An isolation damper will be installed in the toilet and kitchen exhaust. Total isolation of control room and full recirculation of control room air is attained.

d) Infiltration leakage rate

Response:

After completion of isolation in the control room, it is expected there will be little or no infiltration from outside atmosphere in this condition.

e) High efficiency particulate air (HEPA) filter and charcoal adsorber efficiencies.

Response:

No HEPA filters or charcoal adsorbers will be provided.

f) Closest distance between containment and air intake.

Response:

The closest distance between the containment exhaust (stack), and air intake is approximately 350'.

g) Layout of control room, air intakes, containment building, and chlorine, or other chemical storage facility with dimensions.

Response:

The layout of the control room is shown on Burns and Roe Drawing No. 2299-2052, Revision 3. The Mechanical Equipment Room is shown on Drawing No. 2299-2054. The HVAC System layout and air intake is described in Drawing No. 2299-2167, Revision 5. Drawing No. JC19508 describes the general arrangement and dimensions of the Oyster Creek facilities.

h) Control Room shielding including radiation streaming from penetrations, doors, ducts, stairways, etc.

Response:

Control room shielding, including radiation streaming from various sources, is discussed in a report prepared by EDS Nuclear, Inc. The only significant source contributing to an elevated radiation dose rate in the control room is from the core spray booster pump suction and discharge piping located at Elevation 51'3" in the Reactor Building. A shield wall has been installed to reduce the Control Room dose rate below the 10 CFR, Part 50, Appendix A, Criterion 19 limit.

i) Automatic isolation capability-damper closing time, damper leakage and area

Response:

Chlorine and radiation detectors will be provided in the outside air intake of the HVAC system. The 80 x 48 intake and 60 x 45 exhaust dampers will be replaced with bubble-tight dampers in accordance with ANSI-N509. The kitchen and toilet exhaust will be provided with the same bubble-tight isolation damper. Upon detection of chlorine or radiation, these dampers will automatically close within 15 seconds. The HVAC system will be in the recirculation mode.

j) Chlorine detectors or toxic gas (local or remote)

Response:

Chlorine detectors will be installed in the outside air intake to automatically close the isolation damper in case of a chlorine accident.

k) Self-contained breathing apparatus availability (number)

Response:

There are 30 Scott Air Packs available for Health Physics use; 10 units are reserved for the fire brigade, and 15 Scott Air Packs for the Control Room Operators are on order and will be stored inside the control room.

l) Bottled air supply (hours supply)

Response:

There are 80 bottles available for Health Physics use, 32 bottles reserved for the Fire Brigade, and 30 bottles on order - a total of 142 bottles (71 hours of breathing air). Upon request, Allied Fire & Safety in Redbank, New Jersey, has the capacity to fill 80-100 bottles and have them on site at Oyster Creek approximately 1 hour after notification.

m) Emergency food and potable water supply (how many days and how many people)

Response:

The water supply is plant potable water and there is no emergency food available.

n) Control room personnel capacity (normal and emergency)

Response:

The control room has a desired normal operating capacity of 7 people and an emergency capacity of 15 people.

o) Potassium iodide drug supply

Response:

The potassium iodine supply is 10,000 pills, 130 mg. each with a shelf life of 2 years.

(3) Onsite Storage of Chlorine and Other Hazardous Chemicals

(a) Total amount and size of container
(b) Closest distance from control room air intake

Response:

Chemical	Total Amount	Container Size	Closest Distance From CR Inlet
Sulfuric Acid	3,000 gal.	3,000 gal.	250 ft. (L/S Radwaste Bldg.)
Sulfuric Acid	3,000 gal.	5,000 gal.	350 ft. (Pre-Treatment Tank)
Chlorine	10 tons	1 ton	225 ft.
Sodium Hypochlorite	300 gal.	15 gal.	450 ft.

(4) Offsite manufacturing, storage, or transportation facilities of hazardous chemicals.

(a) Identify facilities within a 5-mile radius
(b) Distance from control room
(c) Quantity of hazardous chemicals in one container
(d) Frequency of hazardous chemical transportation traffic (truck, rail, and barge)

Response

There is no off-site manufacturing, storage, or transportation of hazardous chemicals within a 5 mile radius of the OCNGS.

(5) Technical Specifications (refer to standard Technical Specifications)

(a) Chlorine detection system

(b) Control room emergency filtration system including the capability to maintain the control-room pressurization at 1/8 in. water gauge, verification of isolation by test signals and damper closure times, and filter testing requirements.

Resporse:

The Station Procedures rather than Technical Specifications will be revised to reflect the following:

(a) Chlorine detection system surveillance test.

(b) Verification of isolation by test signals from chlorine or radiation detectors.

(c) Verification of damper closure time.