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Morristown, New Jersey 07960
(201) 455-8200

September 21, 1979

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
IE Bulletin No. 79-18

The purpose of this letter is to respond to directives set forth in IE Bulletin No. 79-18 which is concerned with audibility problems encountered on evacuation of personnel from high-noise areas. An engineering evaluation was performed at the Oyster Creek Station to assess the clarity of the announcement systems. The results of the audibility evaluation, the corrective actions determined, and scheduled completion dates for the corrective actions are given below in the responses to the specific action items noted in Bulletin No. 79-18.

Item 1

Determine whether current alarm systems and evacuation announcement systems are clearly audible or visible throughout all plant areas with emphasis on high-noise areas. Determination in high noise areas must be made with the maximum anticipated noise level.

Response

The evaluation performed identified various areas of the plant with varying degrees of audibility problems. In most of the identified problem areas, the announcement messages were either weak or unclear. In a fewer number of problem areas, the existing tone signals, as well as announcement messages, were weak. Due to the addition of new outdoor structures such as a new radwaste facility, a new office/storage building and the off-gas building, certain inaudible areas have been created due to blockage of existing outdoor alarms by these new buildings within the protected zone.

In a few high noise areas where signals and messages could be heard, it has been noted that OSHA regulations require the use of ear protection due to noise levels. Retesting of these areas with ear protection showed

that a considerable loss of audibility was encountered in this manner. For areas such as this, a visual means of warning will be utilized to supplement existing signals.

Attachment I is a list of the identified problem areas indicating the specific problem, the action to be taken and the date for scheduled completion. Attachment II indicates additional steps required to inform station personnel of changes made. Attachment III is a list of areas of special interest where it may be extremely difficult to provide hardware systems. Attachment IV provides a list of those areas determined to be inaccessible due to radiation levels, and the intended actions for those areas.

Item 2

Determine what corrective action is necessary to assure that areas identified as inaudible areas in (1) above will receive adequate audible/visual evacuation signals. In areas where adequate audible/visual evacuation signals cannot be assured by hardware changes, determine what additional administrative measures are necessary to assure personnel evacuation.

Response

Corrective actions are presented for the specific problem areas in Attachment I. In general, areas of weak message clarity will either be increased in volume or additional speakers added. Additional speakers will be added to increase coverage for areas outdoors which were determined to be inaudible. For high noise areas where ear protection requirements cause a reduction in audibility, visual signals will be added to supplement existing tone signals.

Item 3

Submit within 45 days of the date of issuance of this bulletin, a written report of the findings on item (1), and delineate completed or proposed corrective actions per item (2). For operating facilities in a refueling or extended outage, the written report must be submitted within 30 days after plant startup following the outage.

Response

The findings and proposed corrective actions are contained in Attachments I through IV.

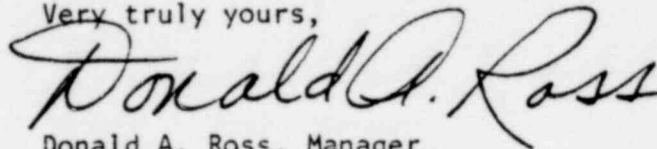
Item 4

For accessible areas, all corrective actions determined per item (2) must be completed within 120 days of the date of issuance of this bulletin. For inaccessible areas, the written report must include a time schedule for completion of corrective actions in this area.

Response

The schedules for corrective action are given in the attachments. Attachment IV provides the schedule of completion for areas determined to be inaccessible.

Very truly yours,

A handwritten signature in cursive script that reads "Donald A. Ross". The signature is written in dark ink and extends across the right side of the page.

Donald A. Ross, Manager
Generating Stations-Nuclear

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Attachments

cc: United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Division of Reactor Operations Inspection
Washington, DC 20555

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EVACUATION ALARM AUDIBILITY EVALUATION
IDENTIFIED PROBLEM AREAS

<u>DEFINED PROBLEM AREA</u>	<u>PROBLEM</u>	<u>CORRECTIVE ACTION</u>	<u>SCHEDULED COMPLETION</u>
<u>Reactor Building:</u>			
Elev. 75' - NW Stairwell	Message Not Clear	Add Speaker	December 7, 1979
Elev. 51' - NW Corner	Volume Weak	Increase Volume	December 7, 1979
Elev. 51' - RBCCW Hx Area	Message Poor (Noise)	Add Speaker	December 7, 1979
Elev. 51' - SE Stairwell	Faint (No Speaker)	Add Speaker	December 7, 1979
Elev. 51' - Cleanup Pumps	Inaudible (Noise)	Add Speaker and Visual	December 7, 1979
Elev. 23'6" - RR Airlock	No Speaker	Add Speaker	December 7, 1979
Elev. 19'6" - NW Corner Room	Messages Poor (Noise)	Increase Volume or Relocate	December 7, 1979
<u>Turbine Building:</u>			
Heater Bay Roof (Outdoors)	Inaudible (No Speaker)	Add Speaker	December 7, 1979
Northwest Roof (Outdoors)	Poor Audibility (No Speaker)	Add Speaker	December 7, 1979
"C" Battery Room	Poor Audibility (No Speaker)	Add Speaker	December 7, 1979
Oil Tank Area - NW Corner	Messages Weak	Add Speaker	December 7, 1979
Air Compressors 1-1 and 1-2	Messages Weak (Noise)	Add Speaker	December 7, 1979
Feedpump Room	Ear Protection Area	Install Visual	December 7, 1979
Basement Corridor - East Wall	Faint (No Speaker)	Add Speaker	December 7, 1979
<u>Boiler House:</u>			
Interior Around Boilers	Inaudible (No Speaker)	Add Two Speakers	December 7, 1979
<u>Office Building:</u>			
Aux. HVAC Fan Room (2nd Floor)	Faint (No Speaker)	Add Speaker	December 7, 1979
2nd Floor Office Corridor	Volume Low	Increase Volume	December 7, 1979
Lobby and Aux. Room	Inaudible (No Speaker)	Add Speaker	December 7, 1979
Mech. Equip. Room (Over C.R.)	Inaudible (No Speaker)	Add Speaker	December 7, 1979
Recirc MG Set Room	Inaudible (Noise) (Ear Protection Area)	Install Visual	December 7, 1979
<u>New Office Building:</u>			
All Areas	Message Weak (A/C Fans)	Increase Volume	December 7, 1979

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EVACUATION ALARM AUDIBILITY EVALUATION
IDENTIFIED PROBLEM AREAS

<u>DEFINED PROBLEM AREA</u>	<u>PROBLEM</u>	<u>CORRECTIVE ACTION</u>	<u>SCHEDULED COMPLETION</u>
<u>Outdoor Spaces (Protected Area):</u>			
Intake and Dilution Area	Poor Audibility	Increase Volume	December 7, 1979
South Fence Area Behind New Office Building	Inaudible	Add Speakers	December 7, 1979
Existing Warehouse Internal	Poor Audibility (No Speaker)	Add Speaker	December 7, 1979
East Area Behind Old Radwaste and New Off-Gas Building	Inaudible	Add Speaker	December 7, 1979
North of New Radwaste Building	Inaudible	Add Speaker	December 7, 1979

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EVACUATION ALARM AUDIBILITY EVALUATION
ADDITIONAL CORRECTIVE ACTION

ACTION TO BE TAKEN

SCHEDULED COMPLETION

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1. Health Physics Training and Procedures
must address addition of Visual Evacuation Alarms. | December 7, 1979 |
| 2. Plant personnel who have received training
should be notified of changes made in systems. | December 7, 1979 |
| 3. Inform Health Physics and Operations Departments
of areas considered inaccessible to determine if
Administrative actions are required before completion
dates given for these areas. | December 7, 1979 |
| 4. Ensure adequacy of existing administrative controls
for drywell evacuation during outages. | December 7, 1979 |

EVACUATION ALARM AUDIBILITY EVALUATION
SPECIAL INTEREST AREAS

The following areas were identified as those where messages and/or signals may not be adequately audible. To provide speakers for all these areas would require additional equipment and manpower to effect hardware changes.

1. Lavatories (All Areas)
2. Office Building Locker Rooms and Shower Areas
3. Mobile Maintenance Locker Rooms and Shower Areas
4. Internal Spaces of Trailer Offices within Protected Area

Action

Scheduled
Completion

1. Provide additional consideration for areas and determine necessary controls or hardware.
2. Complete Corrective Action.

December 7, 1979

December 7, 1979

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EVACUATION ALARM AUDIBILITY EVALUATION
INACCESSIBLE AREAS

The following areas were determined to be presently inaccessible due to high radiation and/or airborne levels.

1. Condenser Bay Areas
2. Demineralizer Tank Rooms
3. Steam Jet Air Ejector Room
4. High/Low Conductivity Room
5. Condenser Vacuum Pump Room
6. Shutdown Cooling Pump Room
7. Cleanup Filter Sludge Tank Room
8. Cleanup Heat Exchanger Area
9. Cleanup Filter and Demin. Rooms
10. Old Radwaste Tank and Pump Rooms
11. New Radwaste Tank Rooms

Corrective Action Completion:

During next refueling outage presently
scheduled for January 5, 1980.

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