NORTHEAST UTILITIES

THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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August 20, 1984

Docket No. 50-423
B11289

Director of Nuclear Reactor Regulation
Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Reference: (1) B. J. Youngblood to W. G. Counsil, SER for Millstone Nuclear Power Station, Unit 3, dated August 2, 1984.

Dear Mr. Youngblood:

Millstone Nuclear Power Station, Unit No. 3
Transmittal of a response to the SER Open Item (2)

Enclosed is Northeast Nuclear Energy Company's (NNECO) response to the SER open item (2) concerning the adequacy of the tornado-missile protection for the emergency diesel generator stacks. This response should fully resolve the staff's concern regarding the open item.

If there are any questions, please contact our licensing representative directly.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY
et. al.

BY NORTHEAST NUCLEAR ENERGY COMPANY
Their Agent

W. G. Counsil
Senior Vice President

A001
1/1

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Then personally appeared before me W. G. Counsil, who being duly sworn, did state that he is Senior Vice President of Northeast Nuclear Energy Company, a Applicant herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Applicants herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

Lorraine J. D'Amico
Notary Public

My Commission Expires March 31, 1988

SER Open Items

SER - 2 Diesel Generator (SER Section 3.5.2, 9.5.8)

Sufficient information on tornado-missile trajectories has not been provided to substantiate the applicant's justification. On receipt of this information, the staff will report on the adequacy of the tornado-missiles protection for the emergency diesel generator stacks and its conformance to the requirements of GDC2.

Response (8/84)

Refer to the revised response to Question 430.134.

NRC Letter: May 31, 1983

Question Q430.134 (SRP Section 9.5.8)

You state in Section 9.5.8.3 that damage to the exposed portions of the diesel exhaust pipe by tornado missiles has been considered. An access hatch in the exhaust ductwork, which will be manually opened during tornado alerts, functions as an exhaust bypass (secondary exhaust path) in the event of tornado missile damage to the exhaust system. This is an acceptable design. However, Figure 9.5.4 of the FSAR shows the location of the exhaust access hatch in relation to the exhaust ductwork and the exhaust plenum openings.

a. From the drawings, a tornado missile, entering either the 66" x 100" or the 48" x 168" plenum openings, could cause sufficient damage to exhaust ductwork and the access hatch to degrade diesel generator operation or result in the unavailability of the diesel generators. We require that the exposed portions of the exhaust stacks be tornado missile protected. Comply with this position.

b. In the event of freezing rain, ice storm, and/or a snow storm because of the location of the openings, clogging or total blockage, or the freezing shut of the access hatch could result. Describe the design features, inservice inspection procedures, and technical specifications which will preclude this event, or alter your design to address the concern.

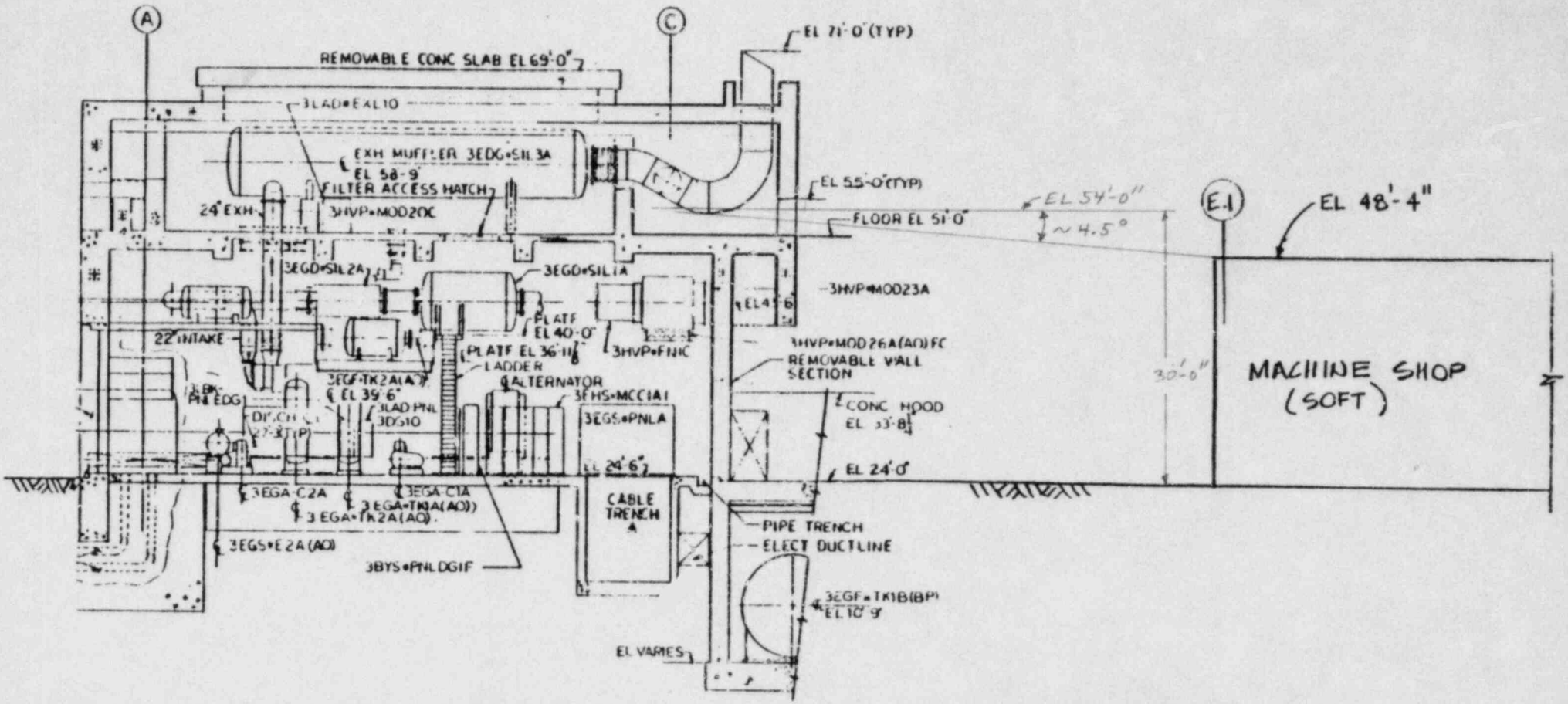
Response:

a. Damage to the access hatch from tornado missiles is not credible. Figures 430.134-1 and 430.134-2 show that no viable missile trajectory targets the access hatch. Once the access hatch is open, exposed portions of the exhaust ductwork are not required. Damage to these exposed parts will not degrade the exhaust.

The plenum openings are arranged in a manner which precludes the targeting of missiles on the exhaust duct access hatch. The exhaust duct is a 40 inch diameter pipe with a 3/8 inch wall thickness. It is seismically supported to withstand the high forces and accelerations experienced during a seismic event. The required missile trajectories necessary to cause damage to the exhaust stack coincident with the elevations required for missile damage are not credible. The proximity of adjacent buildings shields the engine's stack and further decreases the existance of a credible missile path.

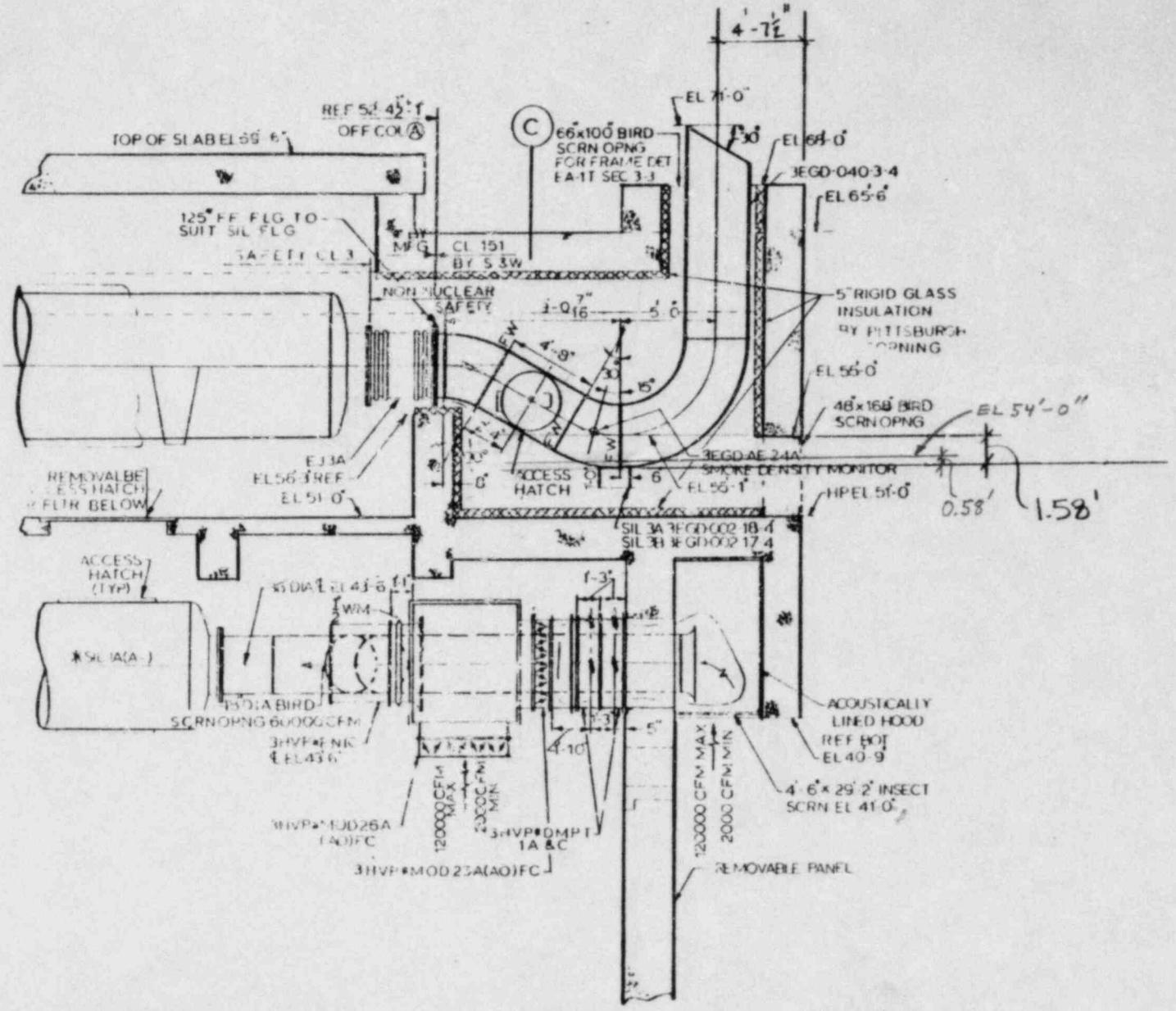
b. As described in the response to NRC Question 430.129, the diesel engine exhaust is equipped with a normally open, low point drain which promotes drainage of water. Frozen precipitation is melted during the monthly diesel generator availability tests and drained through the same exhaust low point drain. It is not credible that any precipitation which could collect and freeze before passing through the drain line, would be sufficient to cause exhaust restriction due to the large exhaust pipe diameter.

Plant personnel will be instructed on procedures for opening the access hatch in the event that there is an ice or snow buildup in the exhaust pipe plenum or on the access hatch.



ELEVATION LOOKING NORTH

FIG. 430.134-1



CLEARANCES AT OPENINGS

FIG. 430.134-2