

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
KNOX FUND AND POWER COMPANY
NORTHEAST UTILITIES COMPANY
NORTHEAST UTILITIES HOLDING COMPANY

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April 29, 1981

Docket No. 50-245
A01452



Director of Nuclear Reactor Regulation
Attn: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

- References: (1) D. G. Eisenhower letter to SEP Plant Licensees, dated January 14, 1981.
(2) W. G. Council letter to D. G. Eisenhower, dated February 27, 1981.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1
SEP Topic 111-4.D, Site Proximity Missiles

As part of the redirection of the Systematic Evaluation Program, Reference (1), Northeast Nuclear Energy Company (NNECO) committed to develop Safety Assessment Reports (SAR's) for certain SEP topics which would be submitted for Staff review. NNECO detailed this commitment and provided a schedule for submittal of SAR's in Reference (2). In accordance with this commitment, NNECO hereby provides the Safety Assessment Report for SEP Topic 111-4.D, Site Proximity Missiles, which is included as Attachment 1.

We trust the Staff will appropriately use this information to develop a Safety Evaluation Report for this SEP topic.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

W. G. Council
Senior Vice President

Attachment 1

Safety Assessment Report

SEP Topic 111-4.D, Site Proximity Missiles

April, 1981

Millstone Nuclear Power Station, Unit No. 1
SEP Safety Assessment Report

Topic II-4.D - Site Proximity Missiles (Including Aircraft)

1.0 Introduction

The objective of this topic is to assure that the integrity of the safety-related structures, systems, and components will not be impaired and that they will perform their safety functions in the event of a site proximity missile.

2.0 Criteria

Standard Review Plan Section 3.5.1.5 states that :

The plant is considered adequately designed against site proximity missiles if the resulting probability of a missile affecting the safety-related features of the plant is within the guidelines established in Section II of Standard Review Plan 2.2.3.

Section II of Standard Review Plan 2.2.3 states:

The identification of design basis events resulting from the presence of hazardous materials or activities in the vicinity of the plant is acceptable if the design basis events include each postulated type of accident for which the expected rate of occurrence of potential exposures in excess of the 10CFR Part 100 guidelines is estimated to exceed the NRC Staff objective of approximately 10^{-7} per year. Because of the difficulty of assigning accurate numerical values to the expected rate of unprecedented hazards generally considered in this review plan, judgment must be used as to the acceptability of the overall risk presented.

3.0 Discussion

The potential for hazardous activities in the vicinity of the Millstone site will be addressed under SEP Topic 11-1.C. An evaluation of nearby industrial, transportation, and military facilities is well documented in Section 2.2 of the Millstone Unit 3 PSAR. The following is excerpted from this section.

Three significant industrial complexes exist within 10 miles of the Millstone site. These are:

<u>Name</u>	<u>Location</u>	<u>Approximate No. of Employees</u>	<u>Distance</u>	<u>Sector</u>
Dow Chemical Corp. (general chemicals)	Ledyard	300	10 Miles	NE
Pfizer Corp. (general chemicals)	Groton	2,700	5.5 Miles	ENE
Electric Boat (Division of General Dynamics--submarines)	Groton	20,000	5.5 Miles	ENE

In addition to the submarine base in Groton and Coast Guard Academy in New London, there is a training headquarters at Camp O'Neil in East Lyme for Connecticut Army National Guard units. Camp O'Neil is owned and operated by the Military Department of the State of Connecticut. It consists of 80 acres on which there are located 70 buildings for various purposes. It is an administrative training center for troops of the Connecticut Army National Guard.

On a full-time basis, besides a small contingent of post operations personnel, it contains the headquarters for the Connecticut Military Academy, the 745th Signal Company, and an Organizational Maintenance Shop (regional maintenance of vehicles and equipment).

On a part-time basis, during various weekends from March through November, it is occupied by troop units for administrative training, billeting, and supply functions. Because of the administrative nature of its occupancy, the camp's operation has no effect on station operation.

No other military operations such as firing ranges, military airfields, ordnance depots, and missile sites, exist near the site.

There are presently two small commercial airports within seven miles of the site, New London (Waterford) Airport and Trumbull Airport. No plans are anticipated by the owners of the airports for expansion of airport facilities.

Because of the nature of traffic at New London (Waterford) Airport, no log is maintained on landings and takeoffs. However, the airport operator has estimated that approximately 250-300 landings and takeoffs occur on good flying days. The operator has also indicated that there are no present plans for expansion of runway facilities, nor for accommodation of larger aircraft. Trumbull Airport, approximately 7 miles east of the site, handles regularly scheduled commercial passenger flights but is inadequate for handling large jets. NNECO has determined that the probability of an aircraft striking safety related structures of Millstone Unit No. 1 is sufficiently low that it does not constitute a significant hazard.

The site is transversed from east to west by a railroad right-of-way of the Penn Central Company. The mainline tracks are about 1/2 mile from the Unit 1. Traffic on the spur of the mainline track which extends onto the site is controlled to minimize the possibility of railroad traffic related accidents. A chlorine rail car is periodically delivered to the south end of the site. The location of the car and the shielding provided by surrounding structures precludes any threat to safety-related components. The adequacy of the control room ventilation system to protect the operators in the event of a toxic gas release will be evaluated as part of TMI Action Plan Item 111.D.3.4, Control Room Habitability.

There are no major gas transmission lines within 5 miles of the site. The nearest low pressure gas distribution line is more than 3 miles from the site and is located at the corner of Clark Lane and the Boston Post Road in Waterford. Thus, gas distribution lines do not pose a hazard to Millstone Unit 1.

The closest oil transmission line is approximately 5 miles from the site in Groton, Connecticut, and does not pose a hazard to the site.

Associated SEP Topics

11-1.C, Potential Hazards Due to Nearby Industrial, Transportation, and Military Facilities.

4.0 Conclusions

Externally generated missiles due to nearness of airports, transportation, industrial, and military facilities, etc., are not postulated for the Millstone site. Therefore, no specific protection is required other than that described for tornado generated missiles.

Pending resolution of SEP Topic 11-1.C, NNECO concludes that operation of Millstone Unit 1 does not present an undue risk to the health and safety of the public as a result of aircraft and site proximity missile hazards.

5.0 References

1. Regulatory Guide 1.91, Evaluation of Explosions Postulated to occur on Transportation Routes Near Nuclear Power Sites.
2. Standard Review Plan Sections
 - 2.2.3 Evaluation of Potential Accidents
 - 3.5.1.5 Site Proximity Missiles (except aircraft)
 - 3.5.1.6 Aircraft Hazards
3. D. M. Crutchfield letter to D. P. Hoffman, dated January 13, 1980.