

# NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY  
THE HARTFORD ELECTRIC LIGHT COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
NEW YORK WATER POWER COMPANY  
NORTHEAST UTILITIES SERVICE COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270  
HARTFORD, CONNECTICUT 06101  
(203) 666-8911

April 27, 1981

Docket No. 50-213  
A01452



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

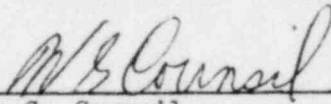
Haddam Neck Plant  
SEP Topic 11-1.A, Exclusion Area Authority and Control

As part of the redirection of the Systematic Evaluation Program, Reference (1), Connecticut Yankee Atomic Power Company (CYAPCO) committed to develop Safety Assessment Reports (SAR's) for certain SEP topics which would be submitted for Staff Review. CYAPCO detailed this commitment and provided a schedule for submittal of SAR's in Reference (2). In accordance with this commitment, CYAPCO hereby provides the Safety Assessment Report for SEP Topic 11-1.A, Exclusion Area Authority and Control, 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,

CONNECTICUT YANKEE ATOMIC POWER COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

  
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W. G. Council  
Senior Vice President

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Attachment 1

Safety Assessment Report

SEP Topic 11-1.A, Exclusion Area Authority and Control

April, 1981

Haddam Neck Plant  
SEP Safety Assessment Report

Topic 11-1.A - Exclusion Area Authority and Control

1.0 Introduction

The safety objective of this topic is to assure that appropriate exclusion area authority and control are maintained by the licensee as required by 10CFR Part 100. The review was conducted in accordance with the guidance given in SRP 2.1.2. The capability of the Haddam Neck Plant to meet the dose criteria of 10CFR Part 100 at the exclusion area boundary will be evaluated in the Design Basis Event phase of the SEP review.

2.0 Criteria

Standard Review Plan Section 2.1.2 states that:

Prior to the issuance of a construction permit or limited work authorization, the applicant must demonstrate that it has the authority within the exclusion area as required by Part 100.3(a), or must provide reasonable assurance that it will have such authority prior to start of construction. Absolute ownership of all lands within the exclusion area, including mineral rights, is considered to carry with it the required authority to determine all activities on this land and is acceptable.

SRP Section 2.1.2 also states that:

Where the designated exclusion area extends into bodies of water such as a lake, reservoir, or river which is routinely accessible to the public, the reviewer must determine that the applicant has made appropriate arrangements with the local, state, federal, or other public agency having authority over the particular body of water and the arrangements made provide for the exclusion and ready removal in an emergency, by either the applicant or the public agency in authority, of any persons on these portions of the body of water which lie within the designated exclusion area.

3.0 Discussion

The Haddam Neck Plant site is located in the town of Haddam, Middlesex county, Connecticut, on the east bank of the Connecticut River at a point 21 miles south-southeast of Hartford, Connecticut, and 25 miles northeast of New Haven, Connecticut. The site consists of approximately 525 acres, bounded by the property lines, as shown on the attached figure. The minimum distance from the reactor containment to the site

boundary is 1,740 feet, and the distance to the nearest residence is over 2,000 feet.

The exclusion area is defined as the area within the site boundary. The area within the site boundary, including mineral rights, is wholly owned by the licensee, who has complete control over activities within the exclusion area. The exclusion area is not defined over the Connecticut River, adjacent to the site. The NRC Staff in recent cases involving shore front sites has interpreted the definition of an exclusion area in 10CFR Part 100 as applying to the entire area surrounding a reactor, including the overwater portion. In these cases, licensees or applicants have been required to make appropriate arrangements to control water traffic within the exclusion area in the event of an emergency. There are provisions in the Haddam Neck Plant Emergency Plan and the State of Connecticut Emergency Plan for the U. S. Coast Guard to control water traffic on the Connecticut River in the vicinity of the Haddam Neck Plant in the event of an emergency.

The lack of a defined exclusion area over the water adjacent to the Haddam Neck Plant site is a deviation from the Staff's current interpretation of the criteria in 10CFR Part 100; however, arrangements with the U. S. Coast Guard as described above meet the intent of the criteria of Topic 11-1.A. This deviation does not constitute a significant safety issue for the SEP review. Extension of the exclusion area to offshore waters will be evaluated during integrated assessment as part of Topic 11-2.c.

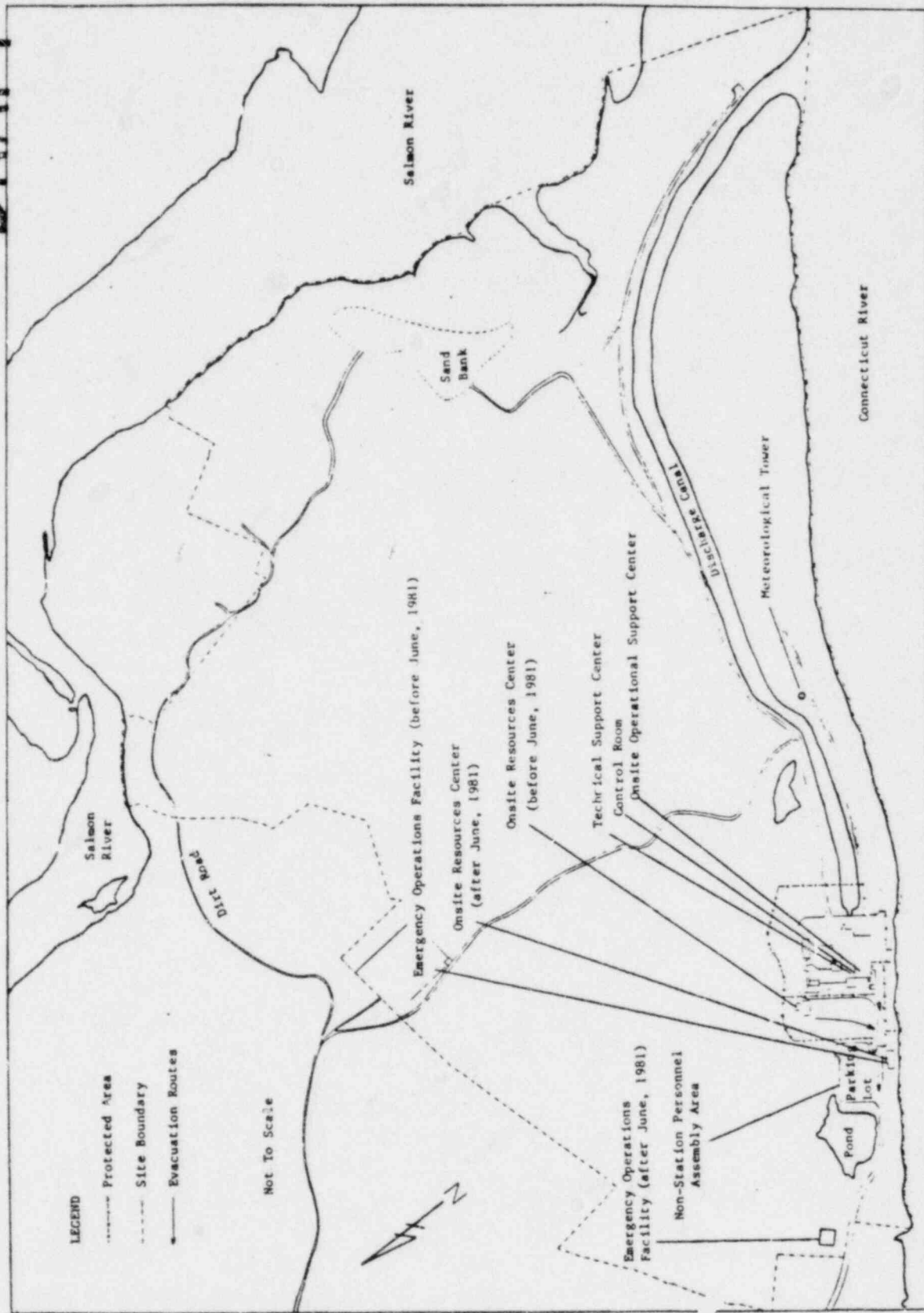
#### 4.0 Conclusions

The conclusion reached is that CYAPCO has the proper authority to determine all activities within the exclusion area as required by 10CFR Part 100. Although the Staff has interpreted 10CFR Part 100 as applying to the entire area surrounding a reactor, including the overwater portion, CYAPCO has demonstrated the ability to control water traffic near the plant. Thus, the intent of this requirement is met.

#### 5.0 References

1. Haddam Neck Plant Facility Description and Safety Analysis, Section 2.1.
2. Standard Review Plan, Section 2.1.2, September, 1975.
3. Haddam Neck Plant Emergency Plan, Revision 7, January 1, 1981.
4. Haddam Neck Plant Emergency Plan, Revision 8, February 13, 1981.
5. D. L. Ziemann letter to D. Bixel, dated November 27, 1979.

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Haddam Neck Site Layout, Emergency Centers, and Evacuation Routes

POOR ORIGINAL