

NORTHEAST UTILITIES



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June 2, 1980

Docket Nos. 50-245
50-336
B10011

Director of Nuclear Reactor Regulation
Attn: Mr. D. M. Crutchfield, Chief
Operating Reactors Branch #5
Mr. R. A. Clark, Chief
Operating Reactors Branch #3
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Reference: (1) W. G. Council letter to D. M. Crutchfield dated
May 20, 1980 (Docket No. 50-213).

Gentlemen:

Millstone Nuclear Power Station, Unit Nos. 1 and 2
Low Level Radwaste Storage Facility

During the past several weeks, our respective Staffs have exchanged information regarding the Low Level Radwaste Storage Facility which is planned for the Millstone site. This facility, similar in concept to that described in Reference (1) for the Haddam Neck Plant, will provide temporary storage of low level wastes in the event of an interruption of normal offsite disposal. Northeast Nuclear Energy Company (NNECO) is hereby providing a brief description of the facility (Attachment 1) and its assessment of the design pursuant to 10CFR50.59 and Appendix B of DPR-21 and DPR-65. NNECO has concluded that the construction and use of this facility does not constitute an unreviewed safety question or an unreviewed environmental impact for the following reasons:

- (1) There is no increase in the risk related to the handling and storage of these low level wastes. Any potential liquid releases will be directed to a sump, analyzed, and, if necessary, returned to the plant for processing.
- (2) Potential radiation doses will be ALARA, maximum potential offsite dose has been conservatively calculated to be 0.4 mrem per year. Realistic calculations indicate that the expected doses will be insignificant when compared to 40CFR190 or 10CFR50, Appendix I limits. Maximum potential dose rate at contact with an exterior wall of the facility is 3 mrem per hour and will be located in an area of infrequent occupancy. The design ensures conformance with all applicable requirements of 10CFR20.

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

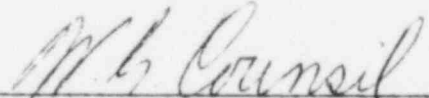
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- (3) The estimated dose is insignificant and undetectable when compared to fluctuations in natural background, EPA and NRC dose limits for the general public, and calculated potential doses from other plant related sources, all of the above being greater than 5 mrem per year. Thus, the additional dose due to this facility is insignificant when compared to doses which have already been determined to be acceptable regarding environmental impact.
- (4) All wastes will be packaged prior to storage. No waste processing will be performed in the facility such that the potential for unplanned releases is insignificant.
- (5) The storage bays will be completely enclosed by concrete such that all stored wastes will be protected from the environment.
- (6) The facility will not introduce the possibility of a new type of accident nor does it change the probability of a previously analyzed accident.
- (7) There is no change to any margin of safety in the Technical Specification bases.

In light of the above considerations and determinations, NNECO has concluded that the applicable regulations do not require NRC Staff review or approval of this facility. Therefore, the attached description is being provided for informational purposes only. It is anticipated that the subject facility will be operational later this calendar year.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Senior Vice President

Attachment

MILLSTONE POINT NUCLEAR POWER STATION
SOLIDIFIED RADWASTE STORAGE FACILITY

CONTENTS

1. Location
2. Description
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 - 2.2 Building
 - 2.3 Drainage
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6. Container Integrity
7. Flood Protection
8. Fire Protection
9. Operation

Attachments

1. Location Plan
2. Site Plan
3. Building Elevations

1. LOCATION

The structure is located in a wooded area approximately 1,200 feet north of the Millstone Point Unit No. 2 containment building (attachment 1).

2. DESCRIPTION

2.1 Site

The building will be situated within a fenced area measuring 200 feet by 200 feet. This area will be built up 1 to 4 feet above existing grade and will be paved with bituminous concrete. A 20 foot wide paved driveway will connect this facility with the Millstone Point access road.

2.2 Building

The building is a reinforced concrete structure 100 feet by 105 feet divided into three 100 foot by 35 foot bays. The height of the building is 13 feet at the center and 12 feet at the end to allow for drainage of the roof. The exterior walls on three sides are 2'6" cast in place concrete and the fourth side is a series of 3 foot thick precast concrete panels. The interior walls are 2 feet thick cast in place concrete. The roof is a series of overlapping precast concrete panels 20 inches thick spanning 35 feet.

2.3 Drainage

Storm drainage from the drive area around the building and bays where liners are not being stored will be routed into the wooded area surrounding the site. Drainage from bays where the liners are being stored will be piped into a storage tank. Little or no liquid is expected to collect in this tank because no liquid wastes are being stored and the roof panels will be sealed to minimize

leakage from rain or snow melt. Any liquid collected will be sampled and tested for contamination; and if found to be contaminated, it will be transported to the plant for processing.

3. STRUCTURAL DESIGN

The facility has been designed to meet the State of Connecticut Basic Building Code as applicable. Further, the structure will be designed for the operating basis earthquake of .09g zero period acceleration using the spectra shape of Regulatory Guide 1.60.

4. SECURITY

A galvanized steel chain link fence will surround the facility. The fence will be 8 feet high with an additional foot consisting of three strands of barbed wire. The access gate will be locked and there will be routine surveillance by security personnel. The building will have no access openings except the removable roof panels which weigh approximately 17,000 pounds.

5. QUANTITY AND TYPES OF WASTES

The building is designed to hold 141 liners (47 per bay). The majority of these will be 300 cubic foot liners containing solidified liquids. The remainder will be 126 cubic foot liners containing dewatered or solidified resin.

6. CONTAINER INTEGRITY

The liners will be coated with epoxy on the inside and painted outside. Prior to filling, the external paint will be inspected for scratches or chips and touched up as required.

7. FLOOD PROTECTION

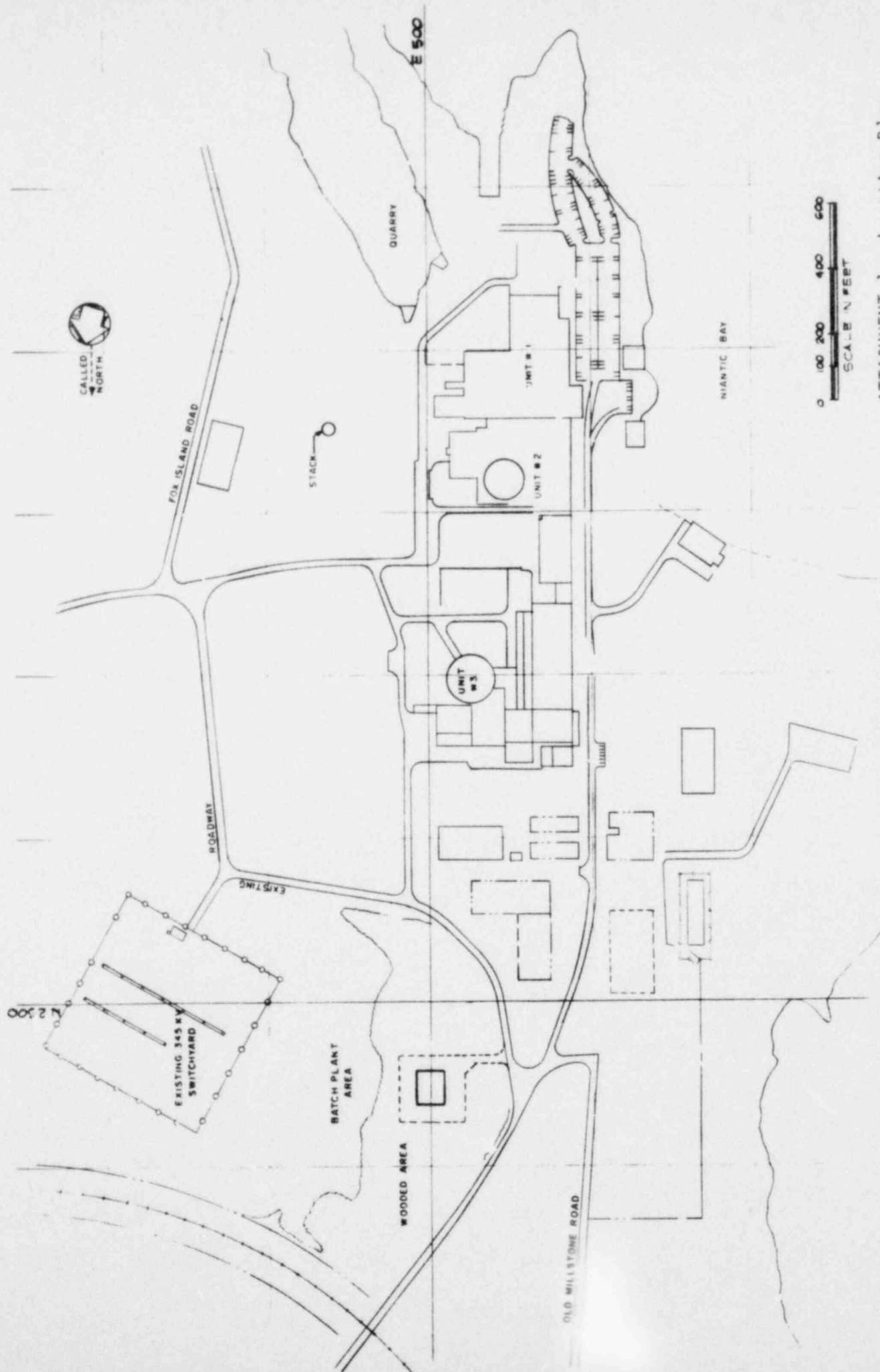
The site is at elevation 32.5 feet approximately 10.5 feet above the flood protection level for the Millstone site which is elevation 22 feet.

8. FIRE PROTECTION

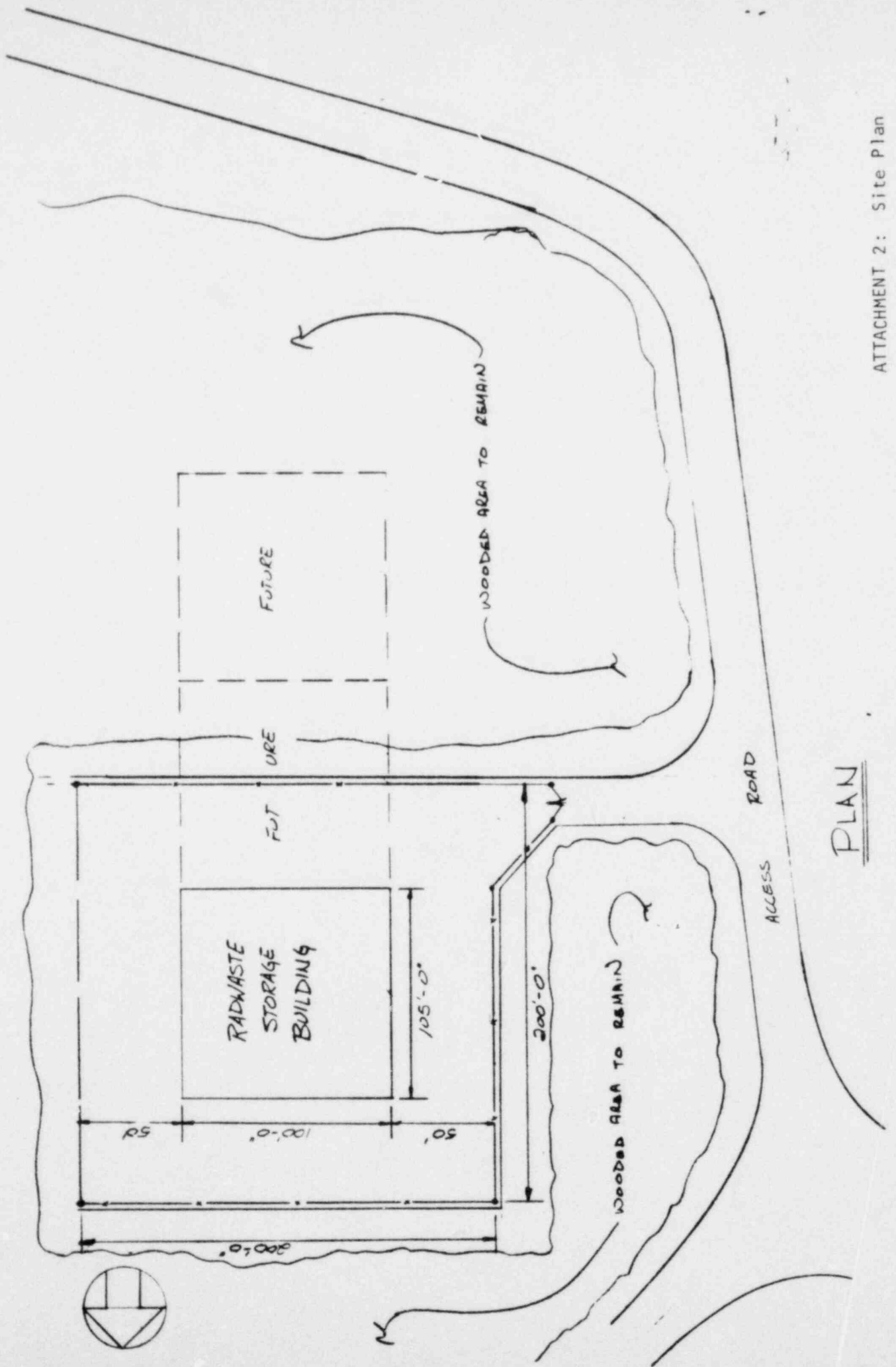
No flammable containers will be stored in the facility; therefore, no fire protection systems are provided.

9. OPERATION

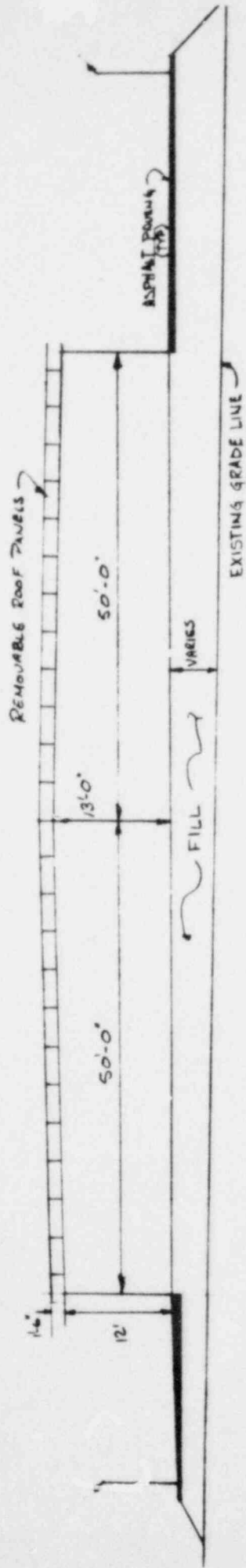
The filled liner will be transported from the plant to the storage facility in a shielded cask. Three of the roof panels will be removed and the liner will be transferred from the cask to the building with a crane. Then, the three roof panels will be replaced.



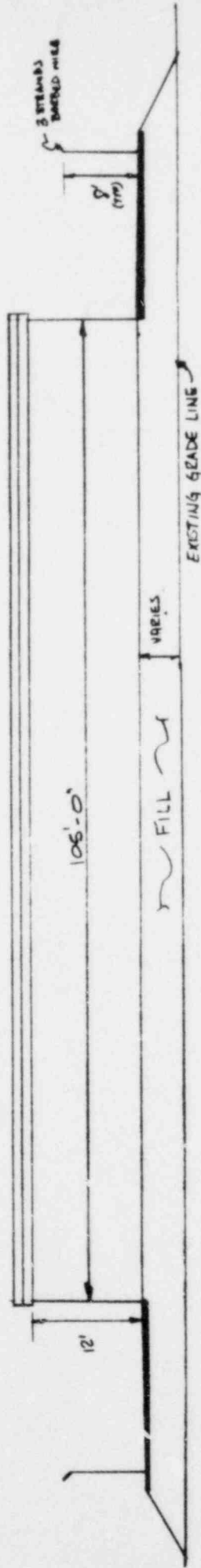
ATTACHMENT 1: Location Plan



PLAN



SOUTH ELEVATION



EAST & WEST ELEVATION