



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NRC STAFF EVALUATION OF SITE STABILIZATION PLAN FOR
YELLOW CREEK NUCLEAR PLANT, UNITS 1 & 2
DOCKET NOS. STN 50-566 AND 50-567

1.0 INTRODUCTION

On August 29, 1984, the Yellow Creek Nuclear Power Plant was cancelled by TVA. On October 24, 1985, in a letter to Hugh L. Thompson, Jr. (NRC) from J. W. Hufham, Manager, Licensing and Risk Protection, TVA, tendered Construction Permits CPPR-172 and 173 for Yellow Creek Nuclear Plant Units 1 and 2, and requested that these permits be withdrawn. Enclosed with this letter was TVA's proposed cancellation plan for the Yellow Creek site, including a site stabilization plan.

On May 21, 1986, a member of the NRC staff visited the Yellow Creek site to (1) examine the environmental condition of the site, (2) evaluate the potential environmental impact (excluding monetary and social) of abandoning construction of the nuclear power plant and (3) determine whether the site stabilization plan submitted by TVA considered all critical areas. The NRC staff member was accompanied by TVA personnel.

2.0 EVALUATION

The TVA site stabilization plan transmitted by its October 24, 1985 letter provides for the stabilization of the site by grading, revegetation and the use of holding ponds to limit erosional runoff until revegetation is completed (See Figure 1). It also provides for control of unauthorized access and prevention of unauthorized use. The plan will remain in effect until the most appropriate long-term use of the site is determined, at which time it will be incorporated into that use.

The site consists of 1160 acres, 585 acres of which were disturbed in varying degrees during plant construction. The disturbed area includes about 90 acres of denuded and spoils area; 275 acres of graveled open storage area, parking area and roadways; 185 acres of construction plant facilities; 10 acres of land committed to permanent features; and 25 acres of temporary holding pond for plant runoff.

During the site visit of May 21, 1986, the entire site was inspected. Much of the grading and seeding had already been completed. All of the rainfall runoff from the site drains through the three holding ponds shown in Figure 1, and thus there will be little if any erosional runoff into Pickwick Lake even prior to completion of the revegetation program. Photographs were taken during the site visit. These photos show the condition of the site at that time and that some of the regrading and seeding has already been completed.

Construction for the Unit 2 containment is still below ground level and TVA is salvaging the rebar and other metal, and plans to backfill the excavation. The two spray ponds have already been excavated and these will be drained through ditches to the site drainage system. There is a considerable amount of material and equipment stored in open graveled areas that will be removed from the site. Concrete slabs and other partial concrete construction will be kept in place. Demolition wastes will be disposed of onsite in accordance with state regulations for solid waste disposal. Toxic and hazardous materials will be disposed of in accordance with hazardous waste regulations. Permanent plant structures will in general be left in place and in their present state of completion. TVA will establish barriers to prevent unauthorized entry to any remaining structures. These barriers will remain in place until a specific need for the land area or structures has been identified. The construction holding ponds will be retained and used to collect site runoff for the duration of site stabilization. TVA will decide the future status of the holding ponds prior to completion of site stabilization activities. During a telephone call on June 21, 1988, TVA informed the staff that the site stabilization program for the Yellow Creek site has been completed and that the holding ponds will be retained. TVA will confirm this in a letter to the NRC after conducting an onsite inspection.

Several activities associated with the Yellow Creek Plant are conducted under permits issued by other regulatory agencies. TVA is in the process of reviewing with these agencies the need to retain and/or modify those aspects of the permits that relate to the cancelled nuclear units.

3.0 CONCLUSIONS

The NRC staff has reviewed the Site Stabilization Plan for the Yellow Creek Nuclear Plant, Units 1 and 2 and concludes that there will be no significant detrimental environmental impact to offsite areas. In addition, pursuant to 10 CFR 51.32, the Commission has determined that revocation of the construction permits will have no significant impact on the environment (52 FR 47983).

Principal Contributors: G. Staley
R. Auluck

Dated: August 29, 1988

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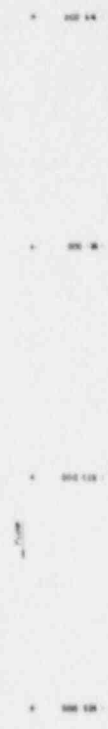
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YELLOW CREEK NUCLEAR PLANT
 CANCELLATION PLAN
 FIGURE 1

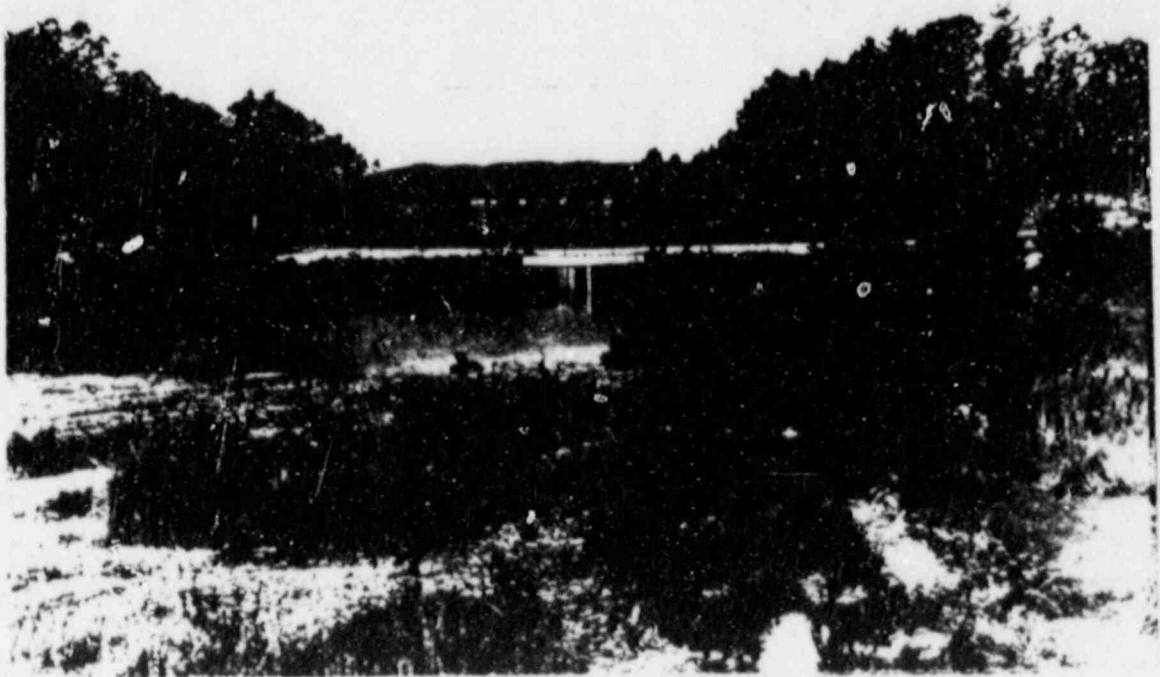
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MOUNTAIN RANGE
 YELLOW CREEK EMBANKMENT
 YELLOW CREEK RESERVE
 YELLOW CREEK NUCLEAR PLANT



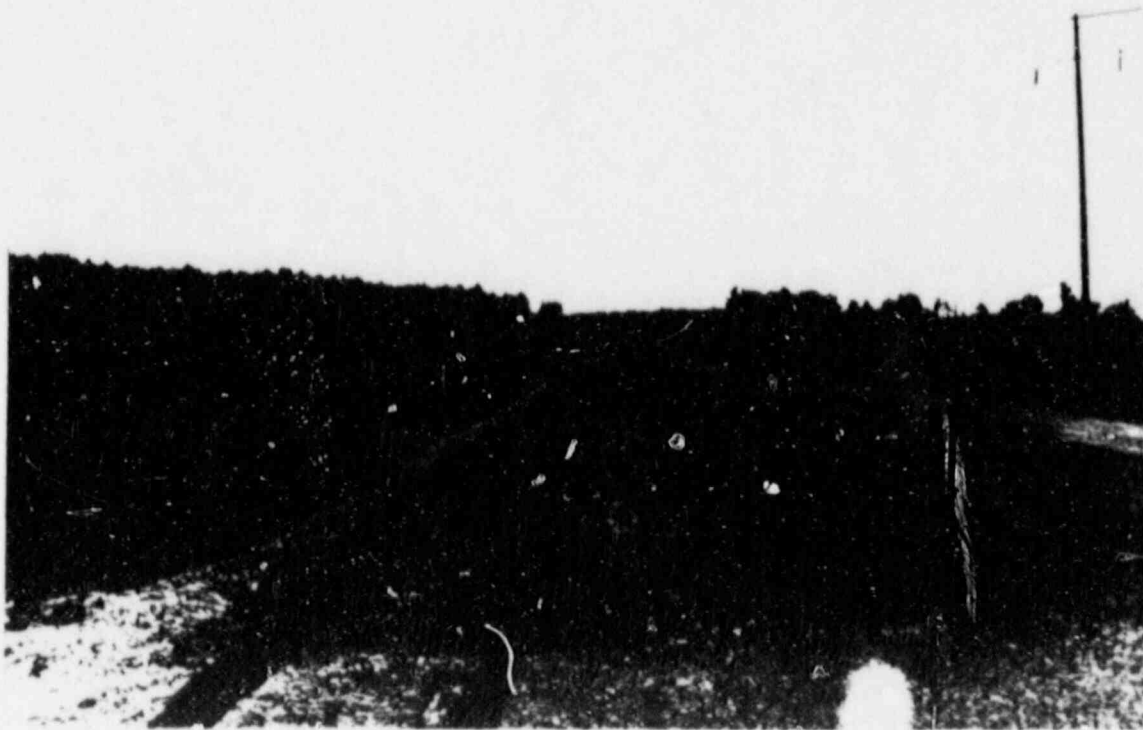
HOLDING POND NO. 3 AND RETAINING STRUCTURE-LOOKING SOUTHWEST



BARGE UNLOADING FACILITY LOOKING WEST TOWARD PICKWICK LAKE



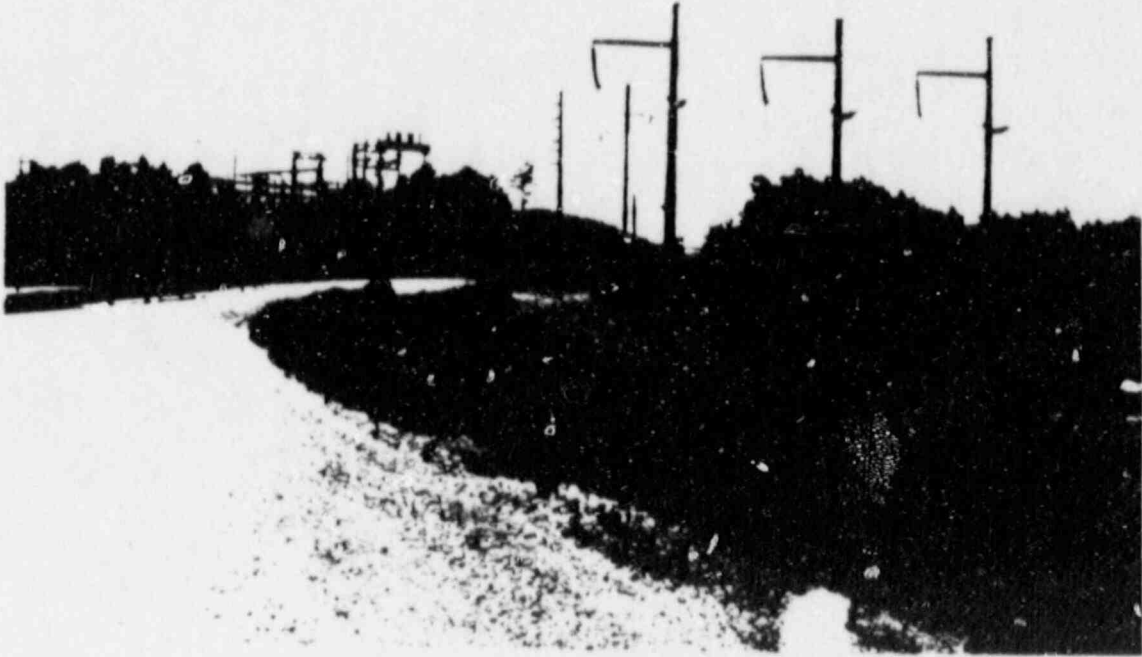
RAILROAD SPUR LINE LOOKING SOUTH AND OFFSITE



RAILROAD SPUR LOOKING NORTH TOWARD TE



CONSTRUCTION POWER LINE



SLOPE NEAR CONTAINMENT LAYDOWN AREA THAT HAS BEEN GRADED AND SEEDED.
LOOKING SOUTHEAST



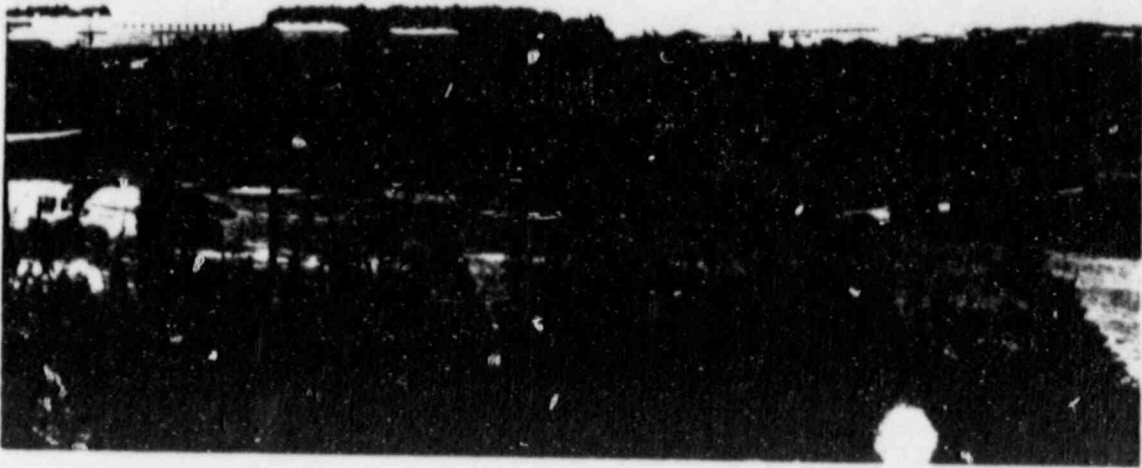
STEEP SLOPE NEAR HOLDING POND
NO. 1 WHERE EROSION CONTROL FABRIC WAS USED



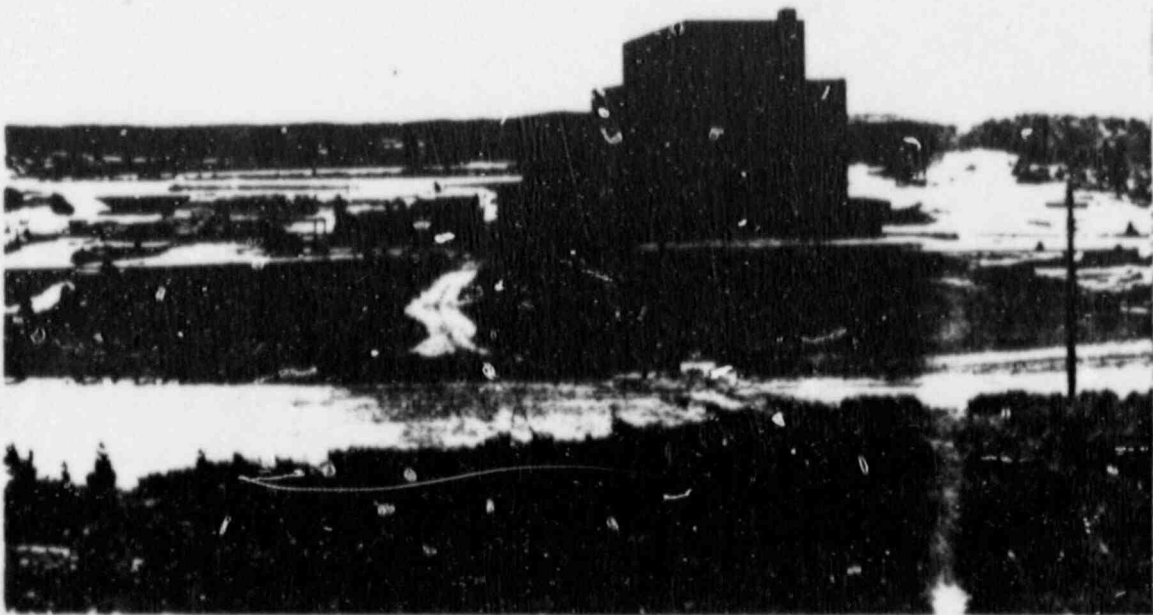
HOLDING POND NO. 1 LOOKING NORTHWEST



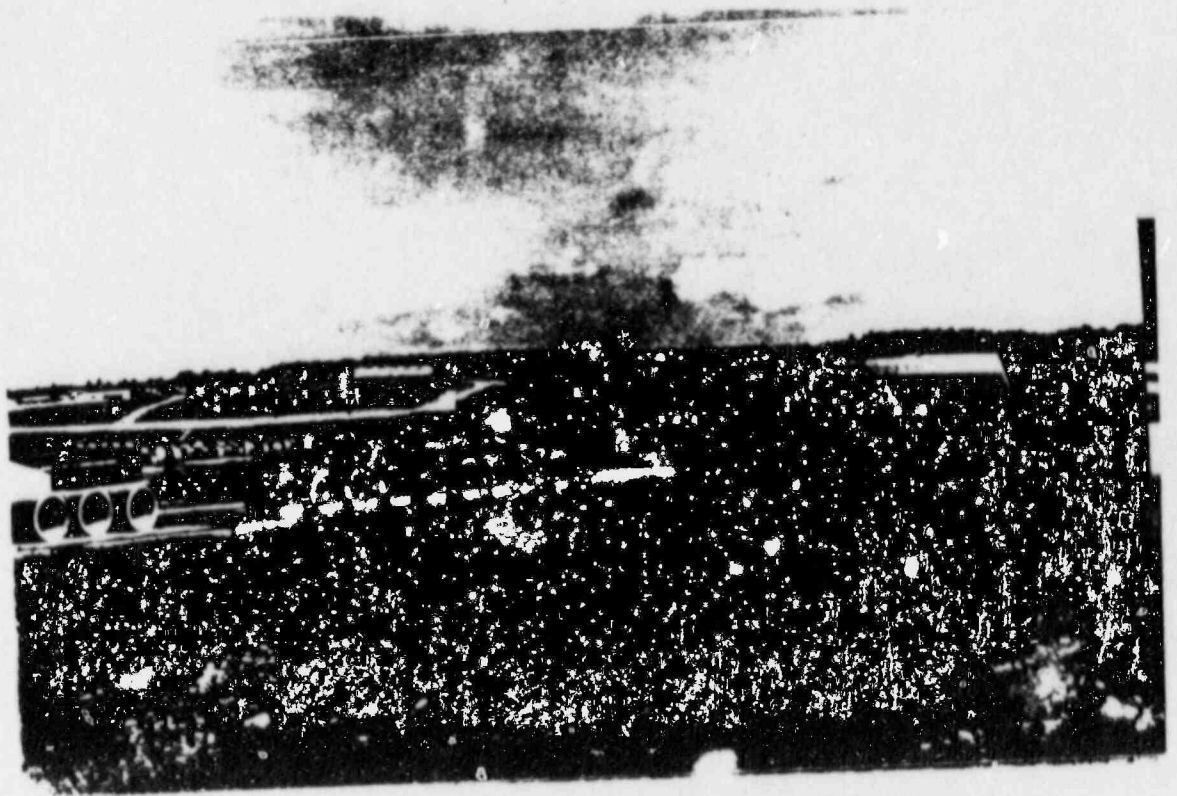
COOLING TOWER NO. 1 FOUNDATION



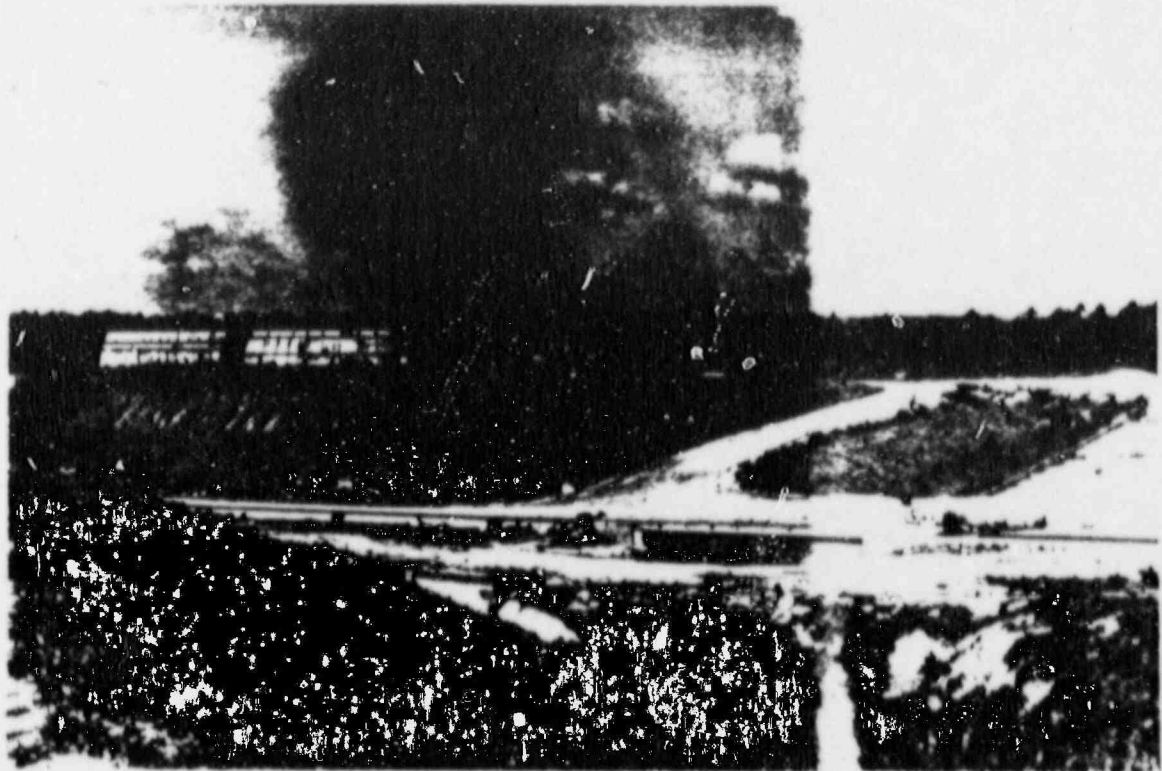
TURBINE BUILDING NO. 1 LOOKING SOUTH



PANORAMIC VIEW WESTERLY DIRECTION FROM ADMINISTRATION BUILDING



CONTAINMENT LAYDOWN AREA WITH RAILROAD BRIDGE IN FOREGROUND
LOOKING SOUTHWEST FROM ADMINISTRATION BUILDING



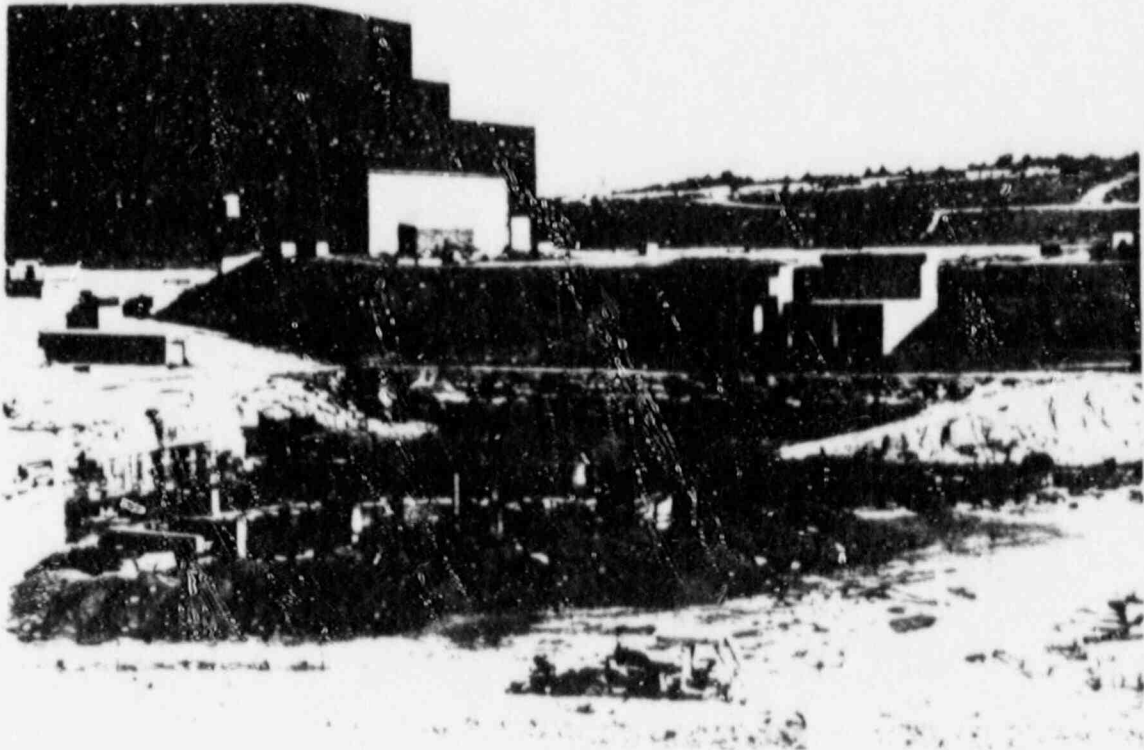
HOLDING POND NO. 2 - LOOKING SOUTHWEST



REACTOR BUILDING NO. 1 - LOOKING NORTHWEST



REACTOR BUILDING NO. 2 FOUNDATION - LOOKING NORTHEAST



REWORKED SLOPE EAST OF REACTOR BUILDING NO. 2



INTAKE PUMPING STATION - LOCKING WEST TOWARD PICKWICK LAKE

