

ASSESSMENT OF FLOODPLAIN ASPECTS OF THE SALEM NUCLEAR GENERATING STATION

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APR 18 1980

ASSESSMENT OF FLOODPLAIN ASPECTS OF THE
SALEM NUCLEAR GENERATING STATION
UNIT 2, DOCKET NO. 50-311

All major plant structures were substantially complete at the time Executive Order 11988, Floodplain Management, was signed by President Carter in May 1977. These structures include the shared (with Unit 1) intake and discharge structures and the wave protection dike. It is our conclusion that consideration of relocating those structures identified as being in the floodplain is neither required nor practicable.

The 1 percent chance (100 year) floodplain at the site is at elevation 9.0 feet Mean Sea Level. Plant grade is 10.5 feet MSL, 1.5 feet above the 1 percent chance floodplain. Thus, most of the site and structures are above the 1 percent chance floodplain. The shared intake and discharge structures and portions of the wave protection dike, however, are below the 1 percent chance flood level. The Executive Order also suggests consideration of impacts in the 0.2 percent chance floodplain where critical facilities are involved. Salem has been designed to withstand the flooding effects of the Design Basis Flood, which is significantly more severe than the 0.2 percent flood (see the Safety Evaluation Report, section 2.4.2). We therefore conclude that neither the one percent chance nor the 0.2 percent chance flood will constitute a hazard to the nuclear plant.

We also conclude that the plant structures in the floodplain will have negligible effect on water levels off the site during a flood event. This conclusion is based upon the small area of those structures in comparison to that of the Delaware estuary, which is over 2 miles wide at the site. In addition, large floods in the site vicinity result from storm surges, rather than river runoff, which are relatively unaffected by alterations in the floodplain.

Consideration of environmental values was addressed in the Final Environmental Statement (FES) for the Salem Station. No significant adverse impacts were found to result from the construction and operation of the station. Certain actions to ensure protection of environmental values were set forth in the FES. These have been addressed in the license for Unit 1, the proposed license for Unit 2, and in the National Pollutant Discharge Elimination System permit issued for the station. It is concluded, therefore, that there is no further action called for pursuant to the Floodplain Management Order to minimize harm or restore values that have been degraded by past actions or to preserve the natural floodplains.

Memo
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