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Docket Nos. 50-237
and 50-249

MEMORANDUM FOR: L. G. Hulman, Chief
Hydrology-Meteorology Branch, DSE

FROM: Gary B. Staley, Hydraulic Engineer
Hydrologic Engineering Section, HMB, DSE

THRU: William S. Bivins, Leader
Hydrologic Engineering Section, HMB, DSE

SUBJECT: SITE VISIT AND DISCUSSION OF INFORMATION NEEDS
FOR DRESDEN I & II REVIEW (SEP)

The site visit to the subject plant was conducted on September 28 and 29, 1978. The purpose of the visit was to view hydrologic features of the Dresden site area and talk to the licensee regarding hydrologic design bases which would enable the NRC staff to subsequently perform the detailed SEP review to assess conformance with present design.

During the site visit I viewed the following areas and plant features:

- (1) River (canal) intake structure for units 2 and 3 and the two intake canals.
- (2) All pumps, piping and gate slots located in the intake structure.
- (3) The Dresden cooling lake, pump structure, overflow spillway, levees and surrounding area.
- (4) Visitors center and plant model which was used for discussion purposes of areas of the plant that were inaccessible.
- (5) Drainage area around the plant buildings.

I had also wanted to see one of the portable gasoline pumps, identified by the licensee as necessary for the emergency flood plan, and the locations where it would be used. They would not immediately locate a pump. The tank to which water is to be pumped in the containment area was not accessible.

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I discussed a portion of the Flood emergency plan with the licensee, however, since there was no one present from NRC that was familiar with plant systems I did not pursue discussions that interfaced or overlapped into plant safety systems. As a result of this experience, I feel that my future SEP site visits should be at the same time as OSS.

The Emergency Plan was discussed with plant personnel. I noted several important features as follows:

- (1) There is not apparent requirement to store the gasoline pumps on site.
- (2) Moving the service water pump motors to an elevation above 530 feet msl involve transfer between two different overhead crane systems.
- (3) Fuel quantity and storage requirements are not specified for the gasoline pumps.
- (4) The plan requires plant personnel to lower the level in all above ground storage tanks to a level ten feet above ground prior to a flood emergency. Generally tanks would be filled to prevent flotation. The licensee could not elaborate on the reason for this requirement.

I noted during my tour of the unit 2,3 intake structure that there are floor openings (probably gate slots) in front (river side) of the service water pumps that will allow flooding of the service water pumps at an elevation considerably lower than the 517 elevation specified in the docket.

We requested the following information from the licensee:

- (1) Rating curve (Elevation vs discharge) for the Illinois River and Kankakee River at the site. The Kankakee River curve wasn't requested during the site visit.
- (2) Topographic map (large scale) of the plant area showing pertinent features.
- (3) Water surface profiles on the Illinois and Kankakee River if readily available. (Normal and Flood flows).

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- (4) Location, number, and capacity of gasoline powered pumps necessary for the emergency flood procedure.
- (5) A complete copy of the emergency flood procedure.

I suggest that on future SEP site visits that camera passes and special badges be coordinated ahead of time. Also the orientation should either be deleted or reduced to the minimum required by the appropriate security or operating procedures.

Original Signed by
Gary B. Staley.

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