

**PLC** *Professional Loss Control, Inc.*

STRUCTURAL STEEL ANALYSIS  
for  
LIMERICK GENERATING STATION

Spray Pond Pump Structure El. 237'

Wet Pit

Fire Area 122B

December 20, 1983

8401190489 840113  
PDR ADOCK 05000352  
F PDR

P. O. Box 446 • Oak Ridge, Tennessee 37830 • (615) 482-3541

## LIMERICK GENERATING STATION

### 1. AREA DESCRIPTION

The area under consideration is the Wet Pit on the 237' elevation of the Spray Pond Pumphouse (Fire Area 122B). The bounding walls of the area are of reinforced concrete construction with an average thickness of 3 ft. The total surface area for heat transfer is 4656 ft<sup>2</sup> (see Attachment A for sketch and calculation of surface areas).

### 2. COMBUSTIBLE LOADING

All cabling in this area is routed in conduit, there are no cable trays. There are no combustible liquids in this area.

### 3. VENTILATION PARAMETERS

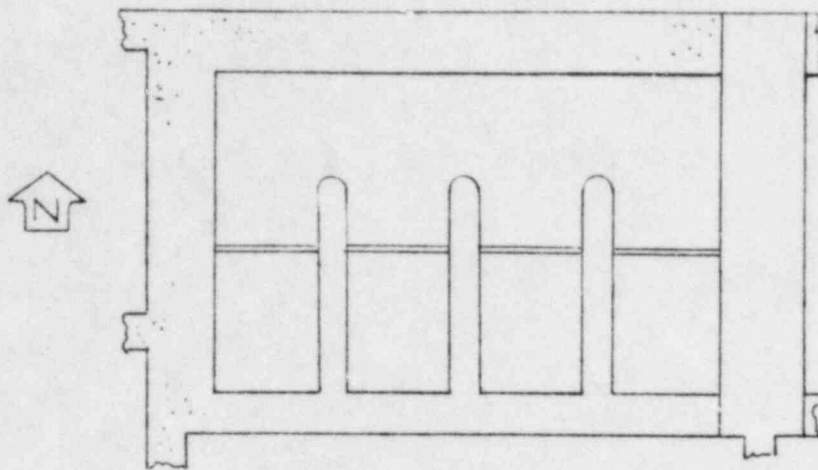
Ventilation to the area is through the ceiling on the 268' elevation which is metal grating.

### 4. CASES EXAMINED

With no exposed combustible cabling and no combustible liquids in the area, there is no fuel in the area to support a fire.

### 5. RESULTS

The structural steel in this area will not fail due to a fire as there are no fixed combustibles in the area to support a fire.



Spray Pond Pump Structure El. 237'  
Wet Pit

Surface Area Calculation

|                                      |             |                            |
|--------------------------------------|-------------|----------------------------|
| <u>Walls</u>                         |             |                            |
| North wall                           | (38' x 31') | 1178 ft <sup>2</sup>       |
| South wall                           | (38' x 31') | 1178 ft <sup>2</sup>       |
| East wall                            | (23' x 31') | 713 ft <sup>2</sup>        |
| West wall                            | (23' x 31') | 713 ft <sup>2</sup>        |
|                                      |             | <u>3782 ft<sup>2</sup></u> |
| <u>Ceiling</u>                       | (38' x 23') | <u>874 ft<sup>2</sup></u>  |
| Total Surface Area for Heat Transfer |             | 4656 ft <sup>2</sup>       |