

STRUCTURAL STEEL ANALYSIS

for

LIMERICK GENERATING STATION

Spray Pond Pump Structure El. 251'

ESW and RHRSW Pump Area

Fire Area 122C

December 20, 1983

LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the ESW and RHRSW Pipeway on the 251' elevation of the Spray Pond Pump Structure (Fire Area 122C). The bounding walls of the area are of reinforced concrete construction with an average thickness of 2 ft. The total surface area for heat transfer is 2372 ft² (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

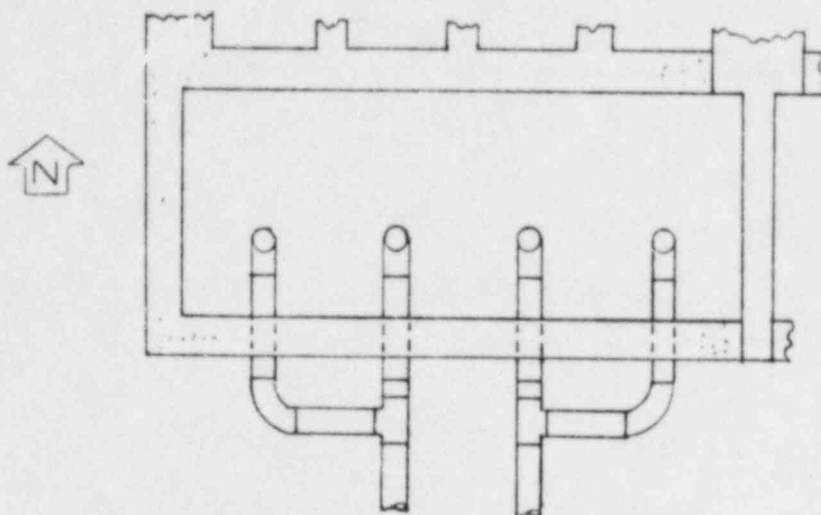
Ventilation to the area is through a hatch located in the southwest corner of the area and is open to the 268' elevation.

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. 251'
ESW and RHRSW Pipeway

Surface Area Calculation

<u>Walls</u>		
North wall	(38' x 17')	646 ft ²
South wall	(38' x 17')	646 ft ²
East wall	(15' x 17')	255 ft ²
West wall	(15' x 17')	255 ft ²
		<u>1802 ft²</u>
<u>Ceiling</u>	(38' x 15')	<u>570 ft²</u>
Total Surface Area for Heat Transfer		2372 ft ²