

STRUCTURAL STEEL ANALYSIS
for
LIMERICK GENERATING STATION

Spray Pond Pump Structure El. 268'

Access Hatch Area

Fire Area 122D

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LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Access Hatch Area on the 268' elevation of the Spray Pond Pump Structure (Fire Area 122D). 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 2014 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

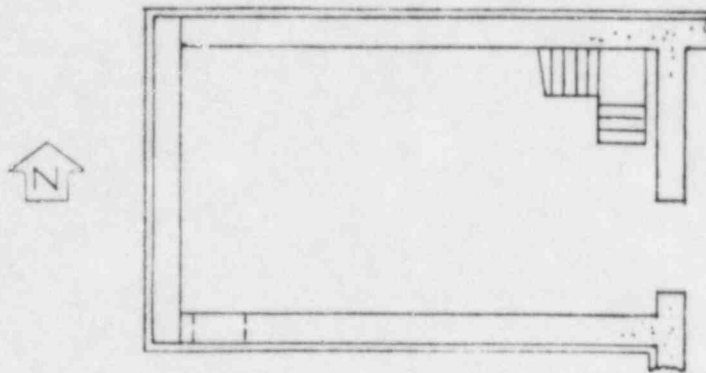
There are three openings into this area. The open stairwell from the 251' elevation, an opening into the ESW and RHRSW Pump Area, and a door leading to the outside.

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. 268'
Access Hatch Area

Surface Area Calculation

Walls

North wall	(32' x 15')	480 ft ²
South wall	(32' x 15')	480 ft ²
East wall	(17' x 15')	255 ft ²
West wall	(17' x 15')	255 ft ²
		<u>1470 ft²</u>

<u>Ceiling</u>	(32' x 17')	<u>544 ft²</u>
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Total Surface Area for Heat Transfer		2014 ft ²
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