

PLC *Professional Loss Control, Inc.*

STRUCTURAL STEEL ANALYSIS

for

LIMERICK GENERATING STATION

Control Structure El. 332'

Standby Gas Treatment System Filter Compartment Room 624

Fire Area 28B

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LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Standby Gas Treatment System Filter Compartment, Room 624, on the 332' elevation of the Control Structure (Fire Area 28B). 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 5564 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

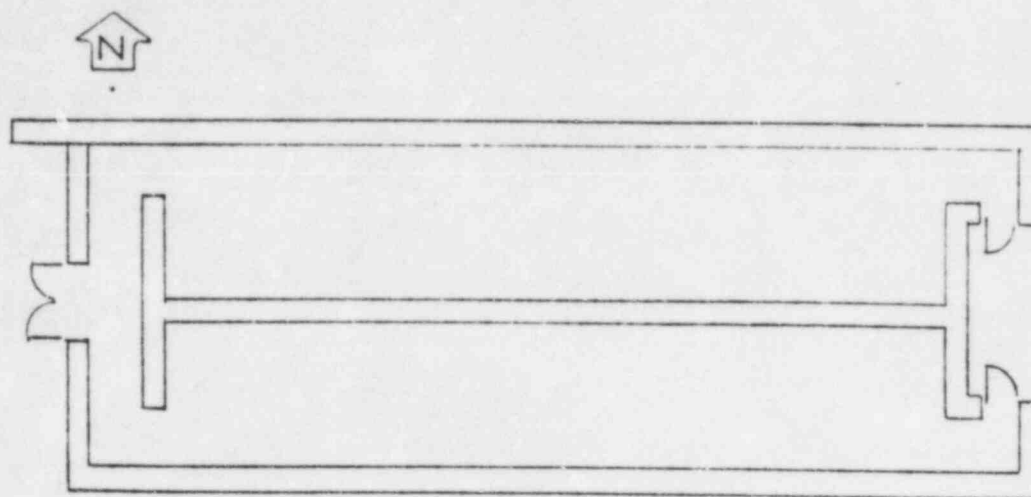
There are three doors which enter this area. Two 3' wide by 7' high doors are located in the east wall and a 6' wide by 8' high double door is located in the west wall.

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.



Control Structure El. 313'
Standby Gas Treatment System Filter Compartment

Surface Area Calculation

<u>Walls</u>		
North wall	(78' x 17')	1326 ft ²
South wall	(78' x 17')	1326 ft ²
East wall	(26' x 17')	442 ft ²
West wall	(26' x 17')	442 ft ²
		<u>3536 ft²</u>
<u>Ceiling</u>	(78' x 26')	<u>2028 ft²</u>
Total Surface Area for Heat Transfer		5564 ft ²