

PLC *Professional Loss Control, Inc.*

STRUCTURAL STEEL ANALYSIS

for

LIMERICK GENERATING STATION

Unit 1 Reactor Building El. 331'

Exhaust Fan Room Room 615

Fire Area 50A

December 20, 1983

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LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Exhaust Fan Area, Room 615, on the 331' elevation of the Reactor Building (Fire Area 50A). 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 6376 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

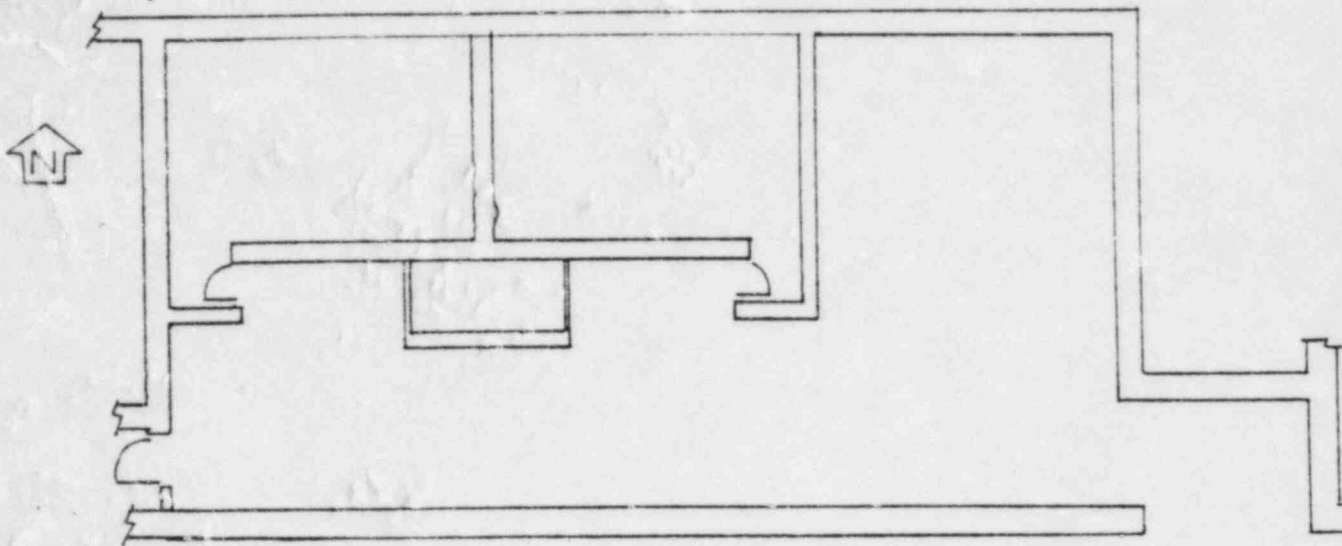
There is one door which measures 3' wide by 7' high located in the west wall of the area.

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



Unit 1 Reactor Building El. 331'
Exhaust Fan Area Room 615

Surface Area Calculation

<u>Walls</u>		
North wall	(74' x 18')	1332 ft ²
South wall	(96' x 18')	1728 ft ²
East wall	(38' x 18')	684 ft ²
West wall	(36' x 18')	648 ft ²
<u>Ceiling</u>		<u>1984 ft²</u>
Total Surface Area for Heat Transfer		6376 ft ²