

STRUCTURAL STEEL ANALYSIS
for
LIMERICK GENERATING STATION

UNIT 1
Unit 1 Reactor Building El. 177'
Corridor - Room 111
Fire Area 40

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LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Corridor (Room 111) on the 177' elevation of the Unit 1 Reactor Building (Fire Area 40) and contains the safety related HPCI pump discharge flow transmitters. 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 3953 ft². (See Attachment A for sketch and calculations of the area.)

2. COMBUSTIBLE LOADING

There are no cable trays or combustible liquids located in this area.

3. VENTILATION PARAMETERS

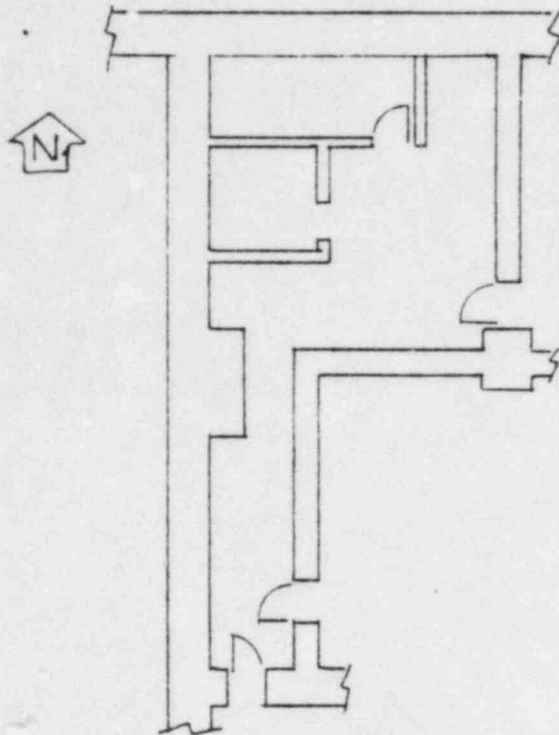
Access doors connect to the stairwell, elevator shaft, and core pump spray rooms.

4. CASES EXAMINED

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

5. RESULTS

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



Unit 1 Reactor Building El. 177'
Corridor - Room 111

Surface Area Calculation

Walls

North wall	(24' x 23')	552 ft ²
East wall	(51' x 23')	1173 ft ²
South wall	(24' x 23')	552 ft ²
West wall	(51' x 23')	1173 ft ²

3450 ft²

<u>Ceiling</u>	(33' x 7') + (16' x 14') + (8' x 6')	503 ft ²
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Total Surface Area for Heat Transfer 3953 ft²