PLC *Professional Loss Control, Inc.*

STRUCTURAL STEEL ANALYSIS

for

LIMERICK GENERATING STATION

Reactor Building El. 198'

Pipe Tunnel Room 202

Fire Area 76

December 20, 1983

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PDR ADOCK 05000352
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E

P. O. Box 446 • Oak Ridge, Tennessee 37830 • (615) 482-3541

LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Pipe Tunnel Room 202 on the 198' elevation of the Reactor Building (Fire Area 76). Bounding walls and ceiling are of concrete construction with an average thickness of 3 ft. The total surface area of the bounding walls and ceiling is 14368 ft^2. (See Attachment A for sketch and calculation of areas.)

2. COMBUSTIBLE LOADING

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

3. VENTILATION PARAMETERS

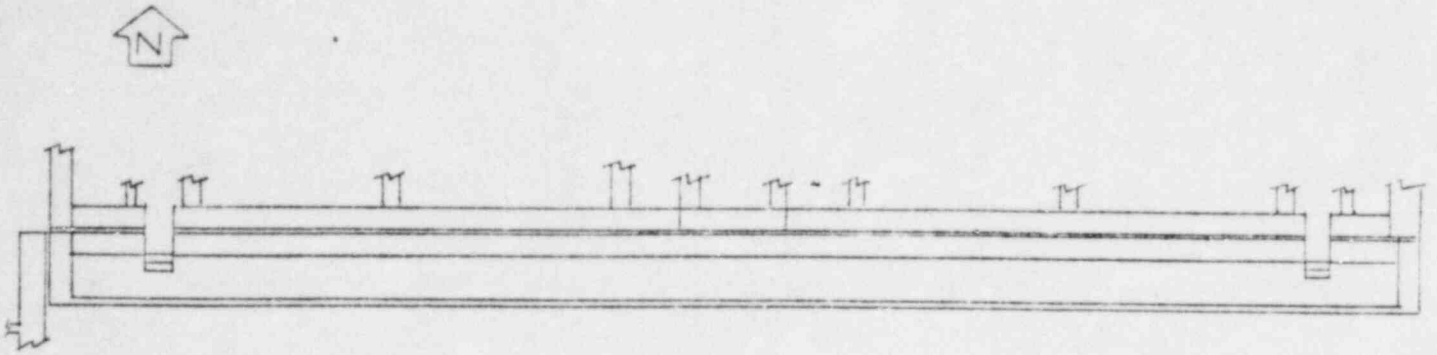
There are two doors into the tunnel. Both doors are in the north wall near the east and west walls of the tunnel. Each door is part of an air lock into the tunnel.

4. CASES EXAMINED

With no exposed combustible cabling and no combustible liquids in the tunnel, there is no fuel in the area to support combustion.

5. RESULTS

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



Reactor Building El. 198'
Pipe Tunnel Room 202

Surface Area Calculation

Walls		
North wall	(320' x 18')	5760 ft^2
East wall	(8' x 18')	144 ft^2
South wall	(8' x 18')	144 ft^2
West wall	(320' x 18')	5760 ft^2
		11,808 ft^2

[Wall height = 217' el - 198' el - (1' floor slab) = 18']

Ceiling	(320' x 8')	2560 ft^2
Total Surface Area for Heat Transfer		14,368 ft^2

ATTACHMENT A