

PLC *Professional Loss Control, Inc.*

STRUCTURAL STEEL ANALYSIS
for
LIMERICK GENERATING STATION

Control Structure El. 200'
Radwaste Pipe Tunnel
Fire Area 115

December 20, 1983

8401090636 840104
PDR ADOCK 05000352
E PDR

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

LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Radwaste Pipe Tunnel on the 200' elevation of the Radwaste Enclosure (Fire Area 115). Bounding walls are constructed of concrete masonry units, steel plate, and reinforced concrete. The ceiling is constructed of reinforced concrete with a 76 ft² open grating connecting Fire Area 89. The walls and ceiling are not fire rated. The total surface area for heat transfer is 3125 ft. (See Attachment A for sketch and surface area calculations.)

2. COMBUSTIBLE LOADING

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

3. VENTILATION PARAMETERS

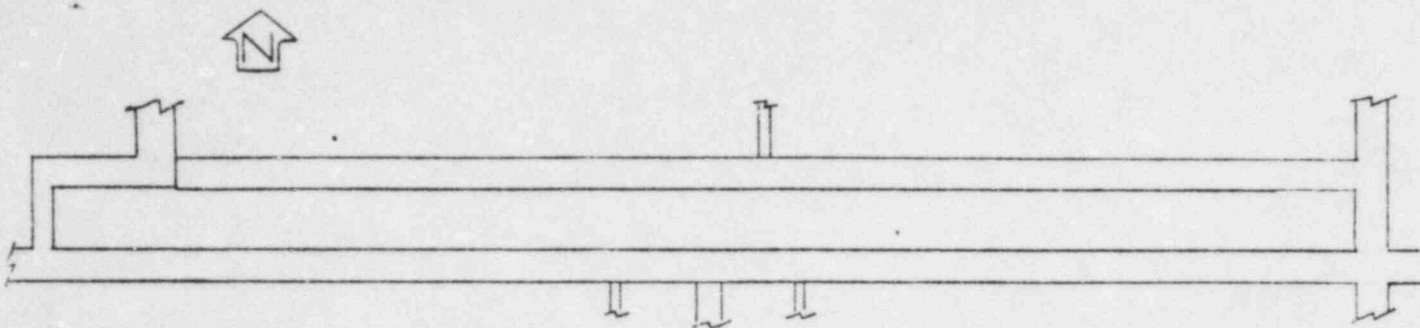
Access doors connect to Fire Areas 102 and 118 from the Radwaste Pipe Tunnel.

4. CASES EXAMINED

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

5. RESULTS

The structural steel in this area will not fail since there is no fuel in the area to support a fire.



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Radwaste Pipe Tunnel

Surface Area Calculation

<u>Walls</u>		
North wall	(145' x 8')	1160 ft ²
East wall	(5' x 8')	40 ft ²
South wall	(145' x 8')	1160 ft ²
West wall	(5' x 8')	40 ft ²
		<hr/>
		2400 ft ²
<u>Ceiling</u>	(145' x 5')	<hr/>
		725 ft ²
Total Surface Area for Heat Transfer		<hr/>
		3125 ft ²