PLC *Professional Loss Control, Inc.*

STRUCTURAL STEEL ANALYSIS

for

LIMERICK GENERATING STATION

Unit 1 Reactor Building El. 331'

Recirc Filter Compartments Room 618

Fire Areas 51A & 51B

December 20, 1983

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

LIMERICK GENERATING STATION

1. AREA DESCRIPTION

The area under consideration is the Recirc Filter Compartments Room 618 on the 331' elevation of the Unit 1 Reactor Building (Fire Areas 51A & 51B). 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 4380 ft^2 (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

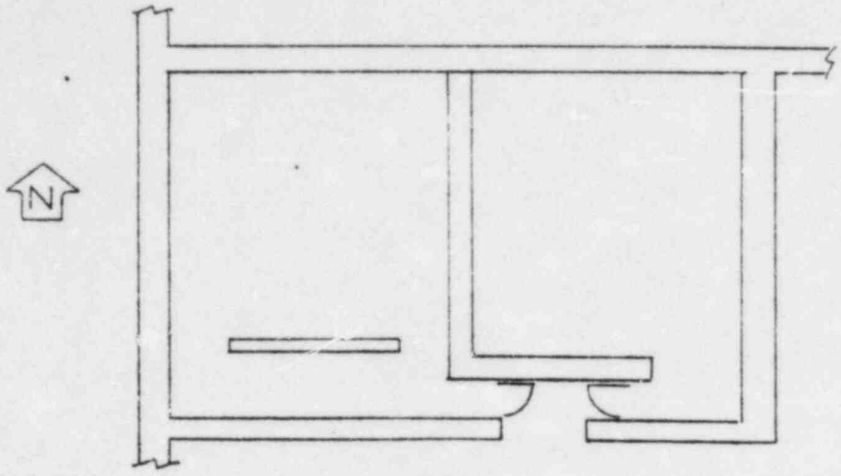
Two doors serve this area, each measuring 3' wide by 7' high. Each door enters a separate filter compartment.

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'
Recirc Filter Compartments Room 618

Surface Area Calculation

Walls		
North wall	(50' x 18')	900 ft^2
South wall	(50' x 18')	900 ft^2
East wall	(30' x 18')	540 ft^2
West wall	(30' x 18')	540 ft^2
Ceiling	(50' x 30')	1500 ft^2
Total Surface Area for Heat Transfer		4380 ft^2

ATTACHMENT A