

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylvania 05000388
 AUTH. NAME AUTHOR AFFILIATION
 CURTIS, N.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 SCHWENCER, A. Licensing Branch 2

SUBJECT: Requests consideration for variance from 10CFR50, APP R, Paragraph III.G for Fire Zone 2-5A, Div 1 compressor motor & motor operated valve located within 9 ft of motor operator valve & compressor motor.

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NOTES: 1cy NMSS/FCAF/PM, LPDR 2cys. 05000388

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NOTES:		3	3				

These valves are used for the control of the flow of refrigerant gas through the system. They are located in the following locations:

- 1. In the suction line, between the evaporator and the compressor.
- 2. In the discharge line, between the compressor and the condenser.

The valves are controlled by the following signals:

- 1. Manual operation of the valve by the operator.
- 2. Automatic operation of the valve by the control system.

Valve: Pressure differential, flow protection
 Valve: Manual operation, flow sense

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Valve	Function	Control	Location	Notes
1	Pressure differential, flow protection	Manual operation	In the suction line	Used for manual control of flow
2	Manual operation, flow sense	Automatic operation	In the discharge line	Used for automatic control of flow



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Norman W. Curtis
Vice President-Engineering & Construction-Nuclear
215/770-7501

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Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
FIRE PROTECTION-REQUEST FOR VARIANCE
ER 100508 FILE 143
PLA-1985

Docket No. 50-388

Dear Mr. Schwencer:

This letter requests your consideration for variance from 10CFR50, Appendix R, Paragraph IIIG.2 for Fire Zone 2-5A at Unit 2 of Susquehanna Steam Electric Station. This request is detailed below:

Requirement:

To provide automatic fire suppression and a one hour fire rated barrier wrap for one redundant safe shutdown system located within 20 ft. of redundant division equipment.

The Unit 2 Emergency Switchgear Cooling System provides switchgear and load center cooling in the event of a loss of offsite power. The load center and switchgear equipment are required for safe shutdown and must be kept at or below their qualified temperatures.

Problem:

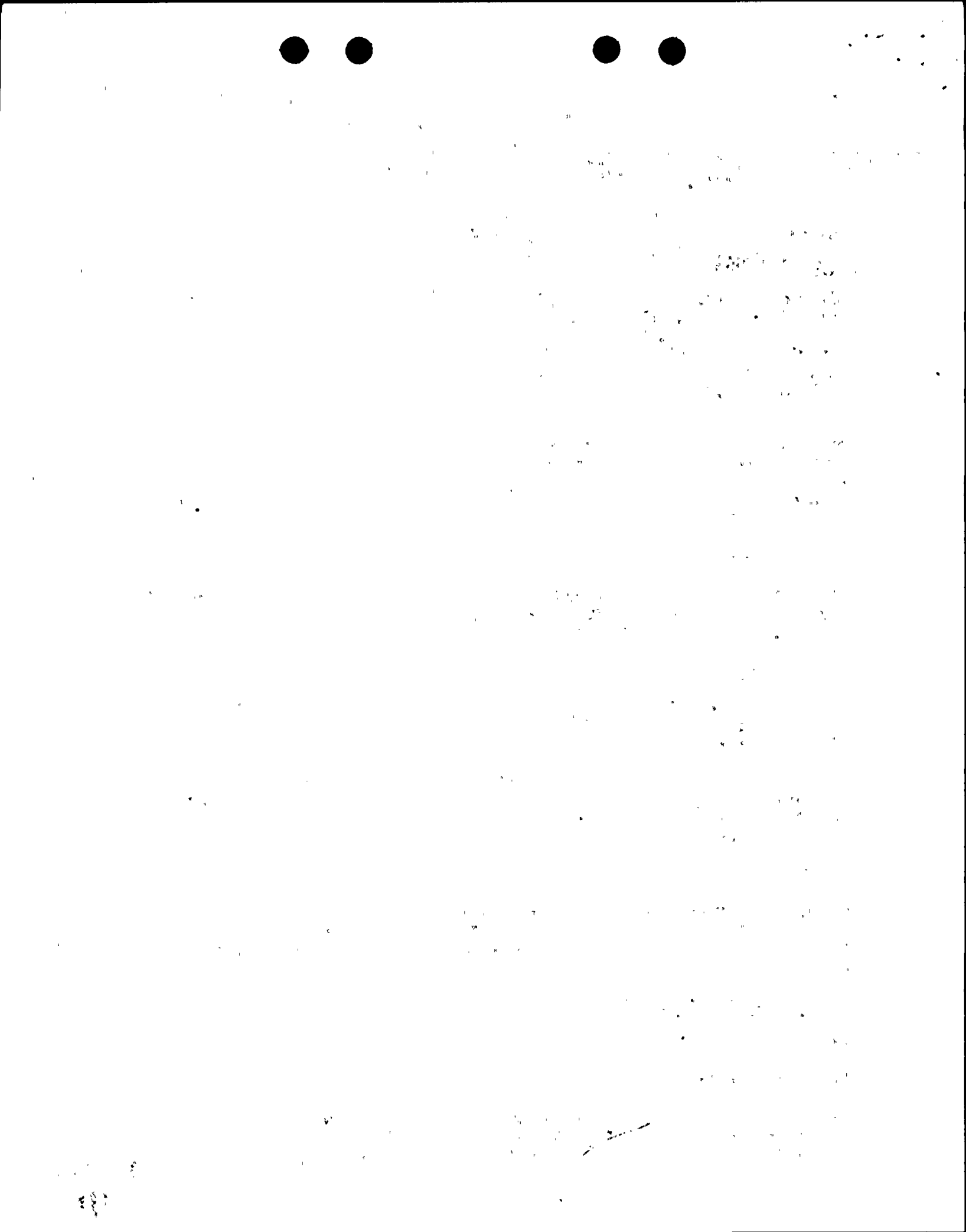
The Division I compressor motor and motor operated valve are located within 9 feet of the Unit II motor operated valve and compressor motor. Providing a 1 hour wrap for the motors is not possible, as wrapping would negate its qualification.

Existing Protection:

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F PDR

- a) Automatic sprinkler protection
- b) Automatic fire detection
- c) A one hour fire rated barrier wrap for Division raceways located within 20 feet of redundant Division electrical equipment except for the specific equipment for which this exemption is being requested.

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Physical Arrangement

- a) This equipment is located in Fire Zone 2-5A (see Figures 1&2). The zone is large and has a low average combustible loading. (3 lbs/sq. ft.) The floor elevation in Fire Zone 2-5A is 749', the ceiling height is 29 feet.
- b) The equipment is located on a mezzanine above Fire Zones 2-5G and 2-5H (see Figure 2). The roof of these zones are at elevation 764' (15 feet above the main floor of Fire Zone 2-5A).
- c) Only this switchgear cooling equipment is located on the 764' elevation.
- d) Access to this area is via a vertical ladder.

Exemption Request:

It is requested that an exemption be granted to permit one division of electrical equipment and raceway for the emergency switchgear cooling equipment located in Fire Zone 2-5A be provided with a one hour rated fire barrier when it is located within 9 feet of the redundant division of emergency switchgear cooling equipment.

We believe this request should be considered acceptable for the following reasons:

- a) Automatic sprinkler protection is provided.
- b) Automatic Detection is provided.
- c) A one-hour rated fire barrier wrap has been previously utilized elsewhere in the plant where essential minority division raceway is located within 20 feet of other majority division raceway.
- d) In situ combustibles are low on the mezzanine (el. 764') and in the main area (el. 749.)
- e) The equipment is located 15 feet vertically and 8' horizontally from any transient combustibles that might be at elevation 749'.
- f) It is highly unlikely that transient combustibles would be brought to the mezzanine (elevation 764') since the only access is a vertical ladder.



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Mr. A. Schwencer

Based on the above, we consider this request an acceptable deviation from requirements. We ask that you act on this request as soon as possible. Should you have any questions, please contact Mr. W. W. Williams at (215) 770-7856.

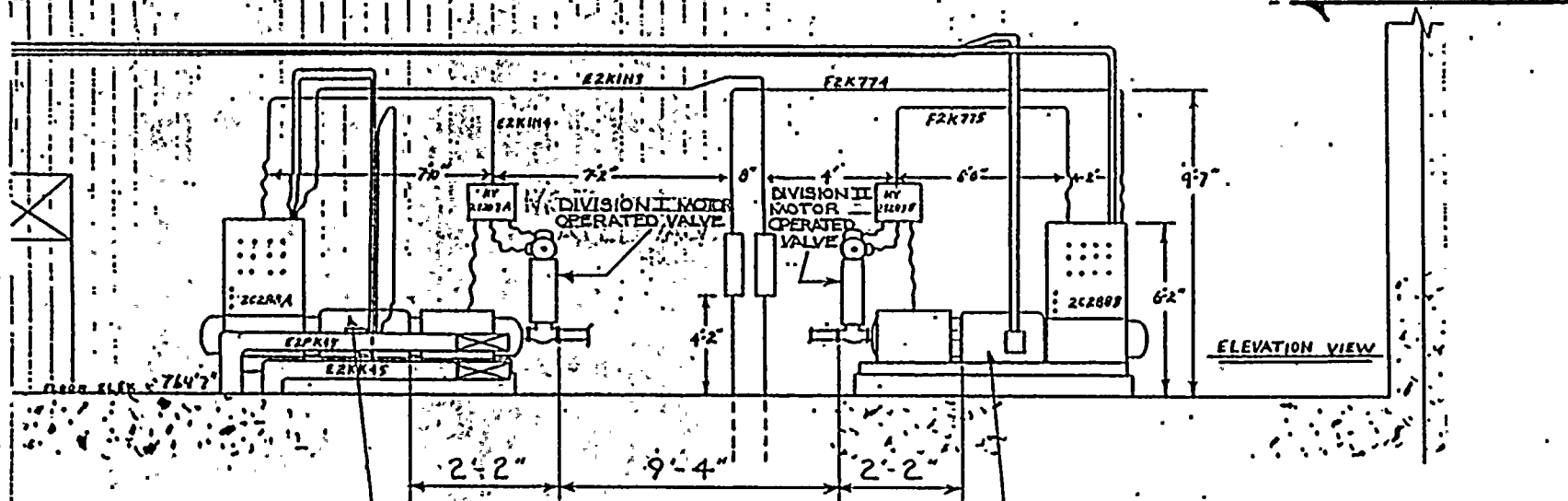
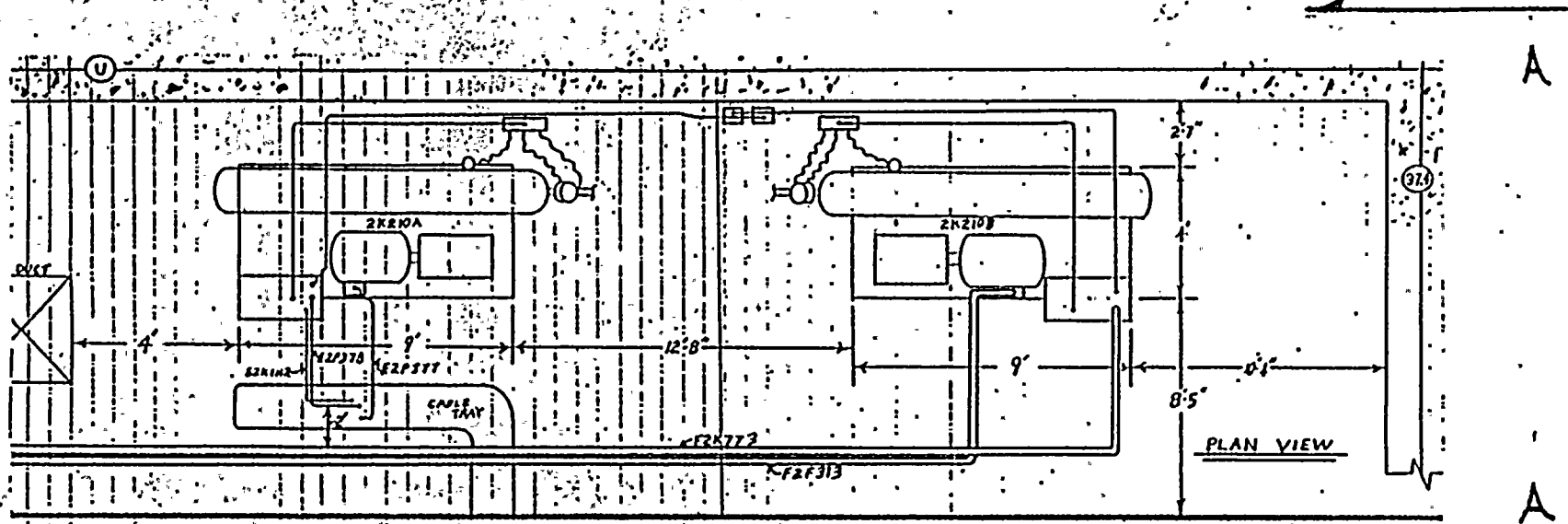
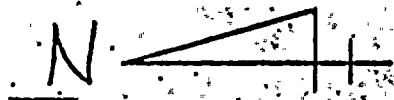
Very truly yours,



N. W. Curtis
Vice President-Engineering & Construction-Nuclear

cc: R. L. Perch - NRC



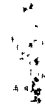
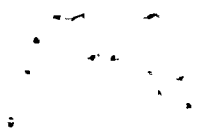


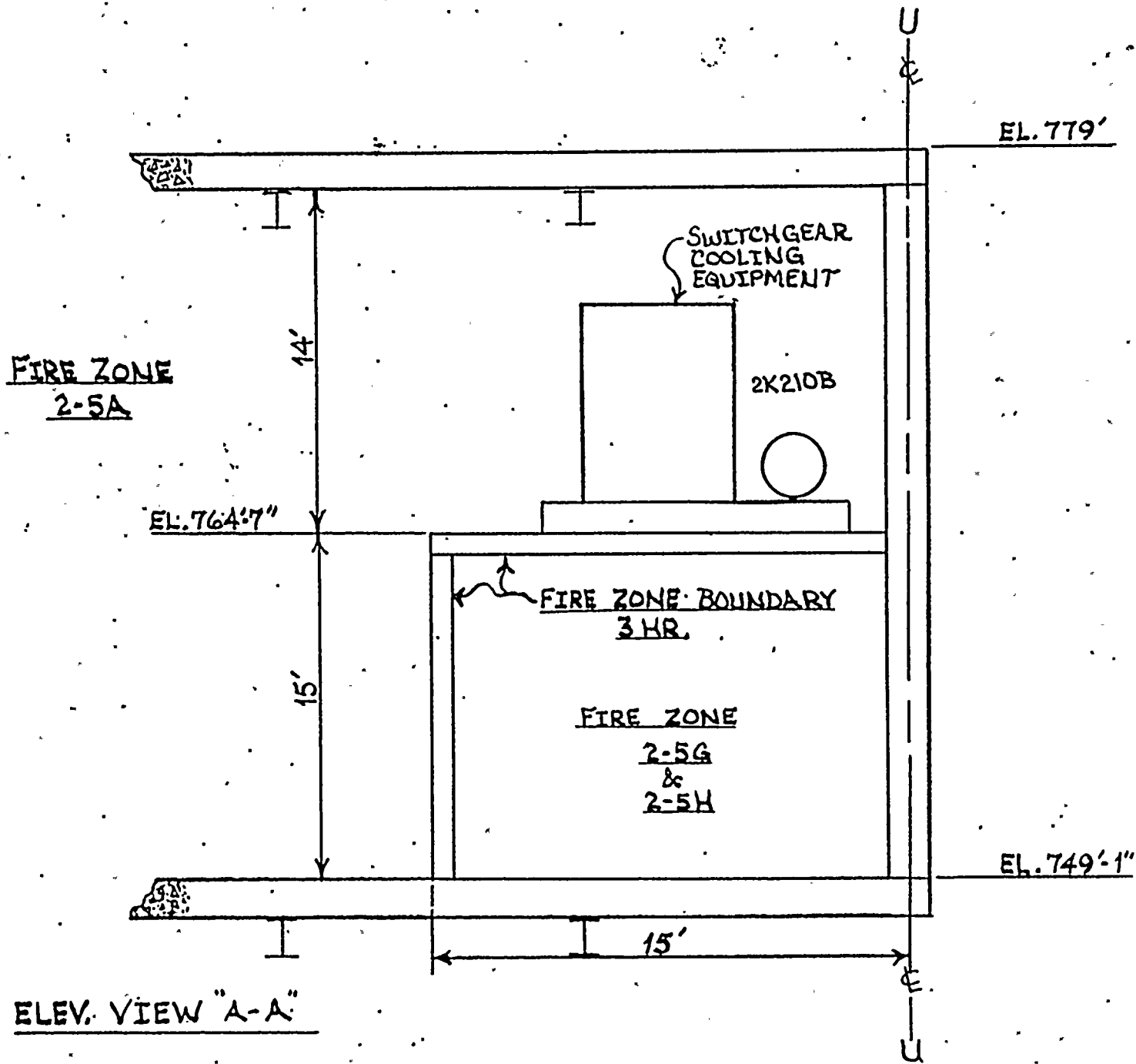
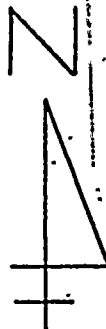
DIVISION I
COMPRESSOR MOTOR

DIVISION II COMPRESSOR MOTOR

FIRE ZONE 2-5A
UNIT # 2

DIVISION I ← | → DIVISION II





FIRE ZONE
2-5A

SWITCHGEAR
COOLING
EQUIPMENT

2K210B

EL. 764'-7"

FIRE ZONE BOUNDARY
3 HR.

FIRE ZONE
2-5G
&
2-5H

EL. 779'

EL. 749'-1"

15'

ELEV. VIEW "A-A"

Figure #2



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