

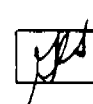
PPG INDUSTRIES

SAFETY

BULLETIN

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LOCKING OF PLANT SUBSTATIONS

PURPOSE

The purpose of this bulletin is to formalize and communicate the procedure for locking fenced electrical substations, and provide a way to admit employees into these areas on a controlled basis.

INTRODUCTION

Near Miss incidents in the past have proven the need to limit access into electrical substations, and provide controls to prevent uninformed personnel from gaining access to live electrical equipment. This bulletin outlines the responsibility for locking these areas, and controls on who may enter.

PROCEDURE

I. Locks

A. The locks are to be keyed by areas as:

1. Power (CE1, CE2, CE4)
2. Plant A)
3. Plant B) Electrical Group (CE3)
4. Plant C)
5. Mercury Cell (CE5)

B. Key Holders will be:

1. Powerhouse Lead Operators - (CE1, CE2, CE4)
2. Power Shift Supervisor - (CE1, CE2, CE4)
3. Shift Superintendent - All
4. Maintenance Electrical Engineering and Construction Electrical Field Engineers - Electrical Group (CE3)
5. Plant A Shift Supervisor (CE5)
6. Mercury Cell Lead Operator. (CE5)

C. The locking procedure will be

1. Single Locks in Plants A, B, C, -(Electrical Group)
2. Dual Locks (in series) in all Power Areas - (Power and Elec. Group)
3. Dual Locks (in series) in Mercury Cell - (Mercury Cell and Electrical Group.

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II. RESPONSIBILITY

A. Locking responsibilities will be:

1. Electrical Group Locks - Electrical Maintenance/Construction
2. Power Locks - Power
3. Mercury Cell Locks - Mercury Cell

B. Admission to locked areas

1. Key Holders may admit themselves to make visual inspections without any further clearance.
2. Others may be admitted to locked areas only with clearance from the following owners:
 - a. Power - Power Areas
 - b. Mercury Cell - Mercury Cell Switch Yard
 - c. Electrical Group - All Others

Electrical Group must first clear with the affected process area before admitting personnel.

3. Clearance means that the keyholder is responsible to assure that the personnel admitted are properly instructed as to electrical hazards. This may include conferring with electrical supervision, job safety instruction, equipment shutdown, switching, tagging, barricading and/or other such items required to make the work area safe.
4. Locking responsibilities include insuring that the substations are locked when work is complete.

C. Repairs/Tests

Electrical Group must first clear with the affected process area before making any repair or test. As this usually requires plant electrical switching, the switching/tagging rules apply. See Safety Bulletin #3.

D. Signs

A reversible sign will be placed on the entrance gate to all substations. The signs will read:

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1. DANGER HIGH VOLTAGE - DO NOT ENTER (To be used when gate is locked)
2. MEN WORKING INSIDE - DO NOT ENTER (To be used when gate is unlocked and authorized employees are working inside)

III. KEYS

Individuals with access are as follows:

A. CE1 - Power

1. Riverside Lead Operator
2. Power Shift Supervisor
3. Shift Superintendent

B. CE2 - Power

1. Powerhouse A Lead Operator
2. Power Shift Supervisor
3. Shift Superintendent

C. CE3 - Electrical Group

1. Reed Clapp
2. Tom Conner
3. Louis Ethridge
4. Billy Hebert
5. Leo Hebert
6. Joe Howard
7. Jim Kerwin
8. Joe Landry
9. Jimmy Miller
10. Ron Mueller
11. Lamar Oliver
12. Mike Stewart
13. John Leibee
14. Shift Superintendent

D. CE4 - Power

1. Powerhouse C Lead Operator
2. Power Shift Supervisor
3. Shift Superintendent

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E. CE5 - Mercury Cell

1. Mercury Cell Lead Operator
2. Plant A Shift Supervisor
3. Shift Superintendent

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LOCKED ELECTRICAL AREAS

LOCATION

- | | |
|---|-------------|
| 1. 69 KV Substation at Riverside | CE 1 & CE 3 |
| 2. Station Service Transformer Reserve 2400V at Riverside | CE 1 & CE 3 |
| 3. Station Service Transformer #4 at Riverside | CE 1 & CE 3 |
| 4. #3 - 13.8 KV Sub at Riverside | CE 1 & CE 3 |
| 5. Lightning Arrestors at North End of Riverside | CE 1 & CE 3 |
| 6. #1 Generator Reactor at Riverside | CE 1 & CE 3 |
| 7. #2 Generator Reactor at Riverside | CE 1 & CE 3 |
| 8. #2 Generator Ground Resistors at Riverside | CE 1 & CE 3 |

LOCATION

LOCKED ELECTRICAL AREAS

- | | |
|---|-------------|
| 1. Riverwater Pumphouse Lighting Substation | CE 2 & CE 3 |
| 2. #4 Water Well Substation | CE 2 & CE 3 |
| 3. 69 KV Substation at Powerhouse A | CE 2 & CE 3 |
| 4. 13.8 KV Substation at Powerhouse A | CE 2 & CE 3 |
| 5. Station Service Transformers at Powerhouse A | CE 2 & CE 3 |
| 6. 13.8 KV Reactor Cabinets at Powerhouse A | CE 2 & CE 3 |
| 7. #7 Generator Reactors | CE 2 & CE 3 |
| 8. 2400/480V Three Phase Transformers at Powerhouse A | CE 2 & CE 3 |
| 9. 2400V Lighting Transformers at Powerhouse A | CE 2 & CE 3 |
| 10. 13.8 KV Bus on Roof at Powerhouse A | CE 2 & CE 3 |
| 11. Joy Air Compressor | CE 2 & CE 3 |
| 12. #2 Water Well and Lighting Substation | CE 2 & CE 3 |
| 13. #7 Water Well | CE 2 & CE 3 |
| 14. Bus #4 Reactors at Powerhouse A | CE 2 & CE 3 |

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LOCKED ELECTRICAL AREAS

<u>LOCATION</u>	<u>KEY</u>
1. Bus 5300, 2400V Single Phase Transformers - Dock Stg.	CE 3
2. Bus 5100, 2400V Three Phase Transformers - Dock Stg.	CE 3
3. 2400V Transformer - South End Maintenance Garage	CE 3
4. 2400V Substation - Pels	CE 3
5. Single Phase Transformer - Thompson Hayward	CE 3
6. Lighting Transformer - West Side South Rectifier Bldg	CE 3
7. Lighting Substation - Old Garage	CE 3
8. Lighting Substation - Maintenance Shop	CE 3
9. K-120 Substation	CE 3
10. Substation - East and West Caustic Areas	CE 3
11. Substation - Tank Lining Shop	CE 3
12. Lighting Substation - Fire Truck Garage	CE 3
13. Lighting Substation - Front Guard Gate	CE 3
14. 2400 A/C Fused Disconnect Switch - Per Tri Sw. Room	CE 3
15. Substation - Main Office	CE 3
16. 13.8 KV Reactors - Plant "C" Substation "A"	CE 3
17. 2400V Substation - Plant "C" Bldg. 30-153	CE 3

LOCKED ELECTRICAL AREAS

<u>LOCATION</u>	
1. 69/13.8 KV Substation - Powerhouse C	CE 4 & CE 3
2. 230 KV Substation - Powerhouse C	CE 4 & CE 3
3. 69/13.8 KV Substation - Vinyl II	CE 4 & CE 3

LOCKED ELECTRICAL AREAS

<u>LOCATION</u>	
1. 13.8 KV Substation - Mercury Cell	CE 5 & CE 3