

General Report No. 1786.

Individual Report No. 16.

Risk Nos. 37 and 38.

Risk : Two Risks; Power House and Storage Battery House and Machine Shop.

Location : Gay and Third Sts., Columbus, Ohio.

Owner and Occupant : The Columbus Railway & Light Co.

Date : May, 1909.

See Map No. 10.

SUMMARY.

A 1 equals 2 story fire proof power station with a 1 and 2 story brick frame storage battery room and coal sheds adjoining and communicating and a 2 story storage battery, machine shop and storage building so constructed and located as to not communicate. Buildings are occupied by generating equipment furnishing commercial electric light and power service for the central part of the City of Columbus. On account of the construction of the buildings it has not been considered necessary to provide any private fire protection except a few pails of sand. Public fire protection is standard.

PROMINENTLY DESIRABLE FEATURES.

Risks are mostly of fire proof construction, have contents not easily ignitable, hazards are rather well guarded and public fire protection is standard.

PROMINENTLY UNDESIRABLE FEATURES.

The power house has a brick and frame addition communicating and seriously exposing its contents, values are large and subject to heavy water damage, area is large and risk has no private protection.

CONSTRUCTION.

Power House: A 1 equals 2 story fire proof engine room and boiler room with a 2 story brick storage battery and employes rooms adjoining and with a 1 story brick and frame coal shed adjoining this all three sections communicating. The area of the fire proof section is 11475 square feet, of the storage battery and employes section 1600 square feet and of the coal shed 4500 square feet, equaling in all 17575 square feet. **Walls** of the main section are 16 inch and of the additions 12 inch. **Roof** on the fire proof section is slate covering bolted to metal rafters supported by metal trusses resting on walls and on the additions is composition gravel covering on wooden sheathing and trusses. **Floors** are of concrete, reinforced concrete, brick or earth except that the second floor of the storage battery and employes rooms section is wooden covered. Interior finish is open. **Stack** is of metal and 150 feet in height. **Storage Batteries, Machine Shop & Storage:** This is a 2 story fire proof structure throughout with a frame blacksmith shop adjoining but of such small size as to be of no importance when the construction of the main risk is concerned. **Area** is 5400 square feet on each floor. **Walls** are of brick and 12 inch. **Roof** is of reinforced concrete gravel covered and floors of concrete or reinforced concrete. There is no wooden interior finish.

EXPOSURES.

Risks have a number of exposures as indicated on map. (SEE MAP No. 10.)

OCCUPANCY.

Power House: Occupied as an electric power house, storage battery room, employes rooms and coal sheds, the machinery consisting of the following; two 350 H. P. boilers in a battery, one 350 H. P. boiler, two batteries of two 250 H. P. boilers each, Wheeler surface condenser and cooling tower, Hoppes feed water heater, two Hoppes live steam purifiers, two Davidson feed water pumps, one Blake duplex drain pump, one duplex circulating pump, one deep well pump, one 250 H. P. double compound engine belted to two 60 K. W. 140 volt D. C. bipolar generators, two 150 H. P. compound engines belted to two 40 K. W. 140 volt D. C. bipolar generators, one 1000 K. W. 275 volt D. C. generator direct connected to a vertical cross compound engine, two 300 K. W. 275 volt D. C. generators direct connected to vertical cross compound engines, two 200 K. W. 135 volt D. C. generators direct connected to one vertical cross compound engine, two 400 K. W. motor generators, motor 4150 volts A. C. and two generators 135 volts D. C., one charging set with 80 H. P. motor and two 25 K. W. 75 volt generators, forty-one panels of switchboard with instruments and equipment, 146 cells Electric Storage Battery Co.'s storage battery, and five 60 gallon cans of oils.

Storage Batteries Machine Shop & Storage: This building is occupied on the first floor as a machine shop and for the storage of several of the company's automobiles and on the second floor as a storage battery room. with 320 cells storage battery. The small frame addition is used as a blacksmith shop.

HAZARDS.

This is a direct current station except that in case of a breakdown at the other stations the motor generators can be reversed and made to deliver alternating current to the other power stations. The voltages usually supplied are 110 and 220 volts over a three wire system used for lighting and power in the main part of the city but in cases of necessity several generators can be thrown in series and used to operate the 500 volt railway service this however being seldom ever done. **Heating** is incidental. **Lighting** is electric with wiring in fair condition except in boiler room where wires are not well insulated and conduit and fittings in poor condition. **Boilers** are well set with forced draft under feed to metal stack. **Ashes** are wheeled to the outside in metal barrows. **Generators and electric power wiring and apparatus** is well installed, switchboards being of marble on angle iron frames with resistances safe and lightning protection on all overhead feeders; the wires on the rear of the switchboard being mostly well flame proofed. A large supply of **oils** is kept stored in the engine room in such location as to seriously damage electrical machinery in case of burning of the oil. Premises are kept in clean and orderly condition.

ADMINISTRATION.

Risks are in operation continuously with 17 employes on duty during the main hours of operation. The main risks are kept in good condition but the old coal shed in the rear is poorly constructed and kept. Building, at present, is not insured.

PROTECTION.

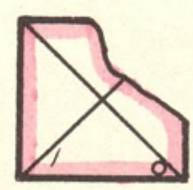
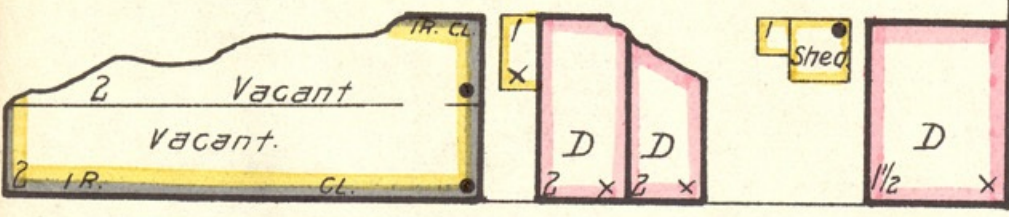
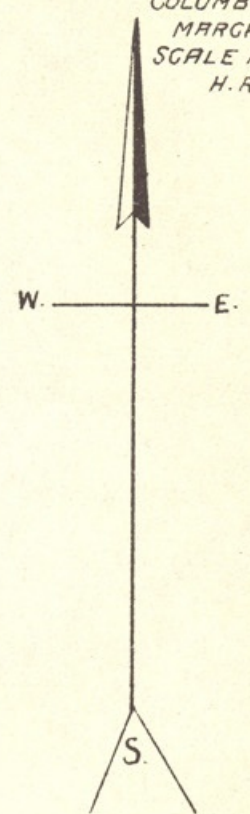
There is no private protection except a few sand pails in the rear of the switchboard but public protection is standard.

RECOMMENDATIONS.

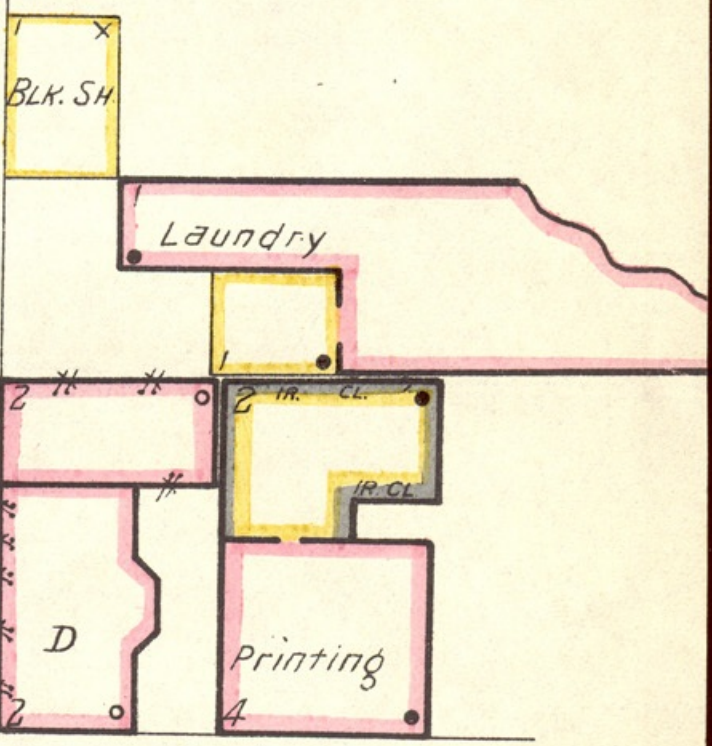
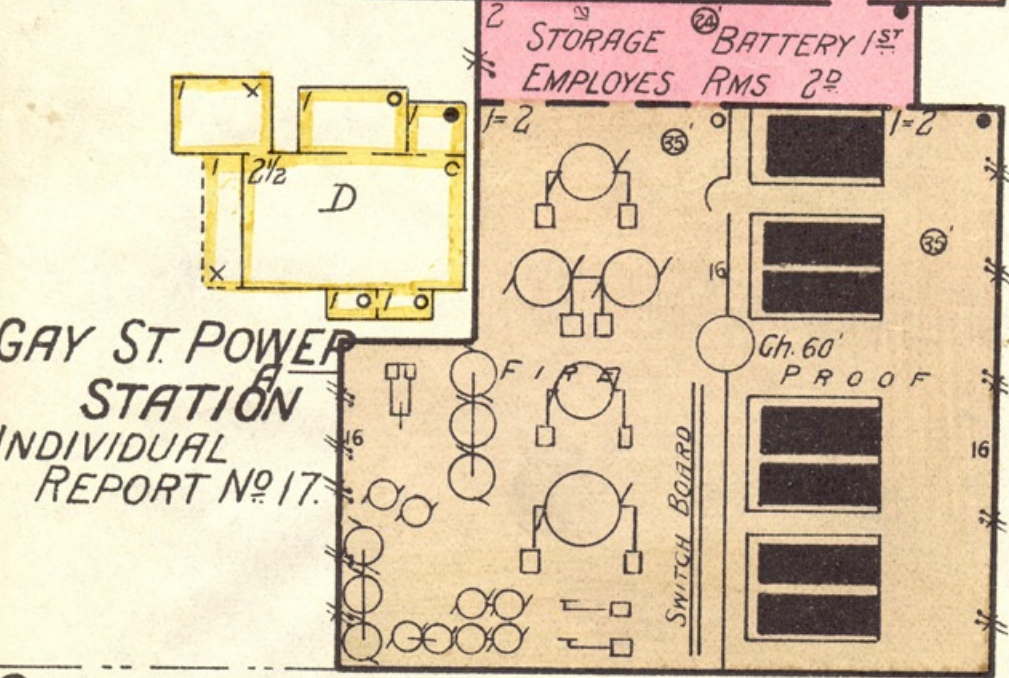
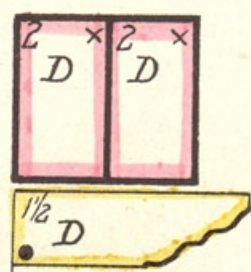
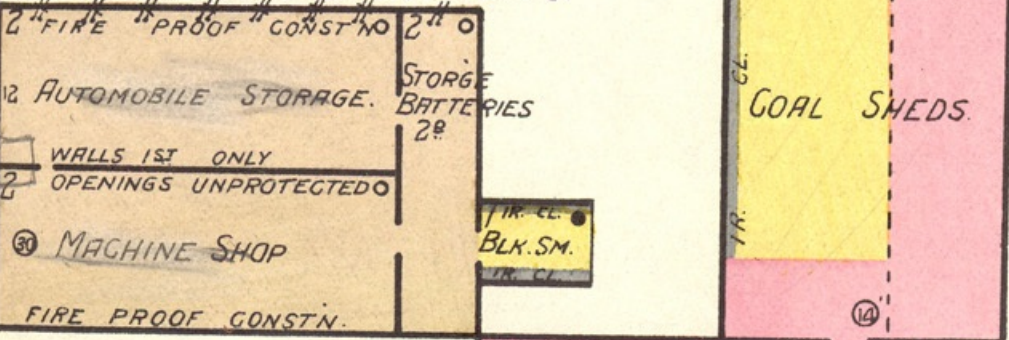
1. Remove oil storage to an outside location or to a location in the fire proof section not exposing to the electrical machinery or other combustible contents.
2. Provide chemical extinguishers covering the risk.
3. Remove old coal storage shed.

THE COLUMBUS RAILWAY AND LIGHT CO.

MAP. No. 10.
OHIO INSPECTOR
BUREAU.
T. B. SELLERS MA
COLUMBUS, OHIO
MARCH-1909.
SCALE 1" = 50'
H. R. M.



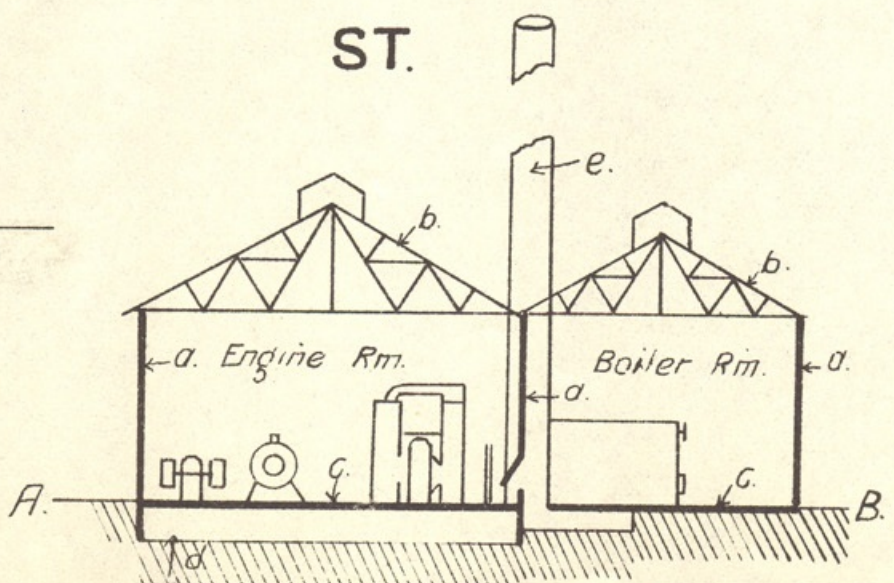
STORAGE BATTERIES MACHINE SHOP INDIVIDUAL REPORT No. 16.



● D.H.

- a- 12" BRICK WALLS PILASTERED UNDER ROOF TRUSSES.
- b- SLATE ROOF BOLTED TO METAL RAFTERS SUPPORTED BY IRON TRUSSES.
- c- CONCRETE OR BRICK FLOORS.
- d- PIPE BASEMENT.
- e- METAL STACK 150' HIGH WITH UNDERFEED FROM BOILERS.

GAY ST.



SECTION - A. B.