General Report No. 1786.
Individual Report No. 7. **Risk** No. 17.
Risk: Power House and Coal Shed. **Class:** 1-2 B. and DD.
Location: Spring and Cozzen Sts., Columbus, Ohio.
Owner and Occupant: The Columbus Railway & Light Co.
Date: May, 1909. **See Map** No. 2.

SUMMARY.

A brick power house with frame coal shed adjoining, this being the principal generating station of the Company. The power house building is of non combustible construction except the roof structure, but has a large frame coal shed adjoining and not cut off and is exposed by a manufacturing risk 15 feet distant. Two small frame buildings, an unused blacksmith shop and storage house are located immediately north. The risk has some private and excellent public fire protection.

PROMINENTLY DESIRABLE FEATURES.

Semi-Fireproof construction, hazards well guarded, good care and management and standard public fire protection are the most prominent desirable features.

PROMINENTLY UNDESIRABLE FEATURES.

Risk is of large area and has a large frame section adjoining and communicating, and boiler room is not cut off. Although there is excellent public fire protection, private protection consists only in hand chemical fire extinguishers distributed. The roof structure is of wooden construction, and the risk is exposed by a brick and frame manufacturing plant on the West.

CONSTRUCTION.

A 1 equals 2 **story** power house buildings in two sections, the engine room and the boiler room, with a frame coal shed and a small frame motor room adjoining the boiler room on the South. The engine room is 30 feet and the boiler room 40 feet to the eaves with roof structures mutually exposing. The dimensions are irregular with a total **area** in the brick sections of 26275 square feet and in the adjoining frame sections of 10050 square feet. **Outside walls** are 16 inch and division wall 24 inch with roofs communicating and with unprotected door openings. **Roofs** are of slate or composition gravel on 2 inch wooden sheathing supported by metal trusses except on the frame coal shed and motor room where they are of metal on 7-8 wooden sheathing and wooden rafters and posts. The boiler room **floor** is of brick, the engine room floors of concrete or reinforced concrete and the coal shed floor is earth. There is a pipe basement under the engine room and an ash tunnel under the boilers with ash elevator to elevated track outside.

EXPOSURES.

Risk exposed on the West by The Lattimer Williams Mfg. Co.'s brick and frame office and shipping room at a distance of 15 feet.

OCCUPANCY.

Occupancy is for power house purposes only. The machinery and equipment consists of; seven 750 H. P. batteries of B. & W. boilers-two boilers to a battery, equipped with Green mechanical stokers and economizers four batteries having mechanical draft, two 550 volt D. C. genera-

tors 1050 K. W. direct connected to cross compound engines, one 550 volt D. C. generator 850 K. W. direct connected to cross compound engine, two 550 volt D. C. generators 500 K. W. direct connected to tandem compound engines, two Curtis 4400 volt A. C. three phase steam turbo-generators 500 K. W. capacity, and one of 1500 K. W. capacity, one motor generator 500 K. W. and one 300 K. W., one booster 300 K. W., one engine driven exciter 30 K. W. and one 50 K. W., one motor driven exciter 35 K. W., seven Wheeler condensers, three Hoppes exhaust heaters, three boiler feed pumps, two hotwell pumps, three service pumps, three pressure pumps for turbines, one steam driven and two motor driven, one 2 H. P. 550 volt D. C. motor used in machine shop, one 30 ton crane, one 50 K. W. transformer and one of smaller size for lighting service, one drill press, one engine lathe, one emery wheel, oil filtering system, a 22 panel high tension switchboard with equipment and 18 oil switches in fireproof compartments, 15 panel, 3 panel and 24 panel switchboards for 500 volt current and steel lockers for employes use. Electrical machinery is principally of General Electric Co.'s manufacture.

HAZARDS.

Heating is incidental and lighting electric with wiring in good condition a portion being in conduit. **Boilers** are well set and have sufficient clearance from roof structure. One **boiler stack** is of brick and safe, the other is of metal and used with the mechanical draft and economisers with 18 inches clearance at the roof sheathing and extending only about twenty feet above the roof. **Ashes** are taken out through the ash tunnel and the metal elevator to the ash cars outside or are hauled out in metal barrows. Steam pipes are kept clear of combustible material and engines and generators are properly set. Both high and low tension power wiring is generally in fair condition except that supplying the motors operating the economizer scrapers, which is badly in need of repair. **Switchboards** are of slate on angle iron frames with resistances well mounted and with lightning protection on the pole just outside. **Transformers** are of the oil insulated type but are small and so located as to not be particularly hazardous. There is an oil filtering and gravity fed lubricating system with tanks located near the roof, while the main supply of **oils** is either kept outside or in the fireproof basement. **Oily waste** is kept well cleaned up and the premises are clean and orderly in general.

ADMINISTRATION.

Excellent management and discipline is maintained and the premises kept in good condition. There are 70 men in all employed here and the risk kept more or less in operation continuously. Insurance is carried under general form the items being given in the value sheet. (SEE VALUE SHEET).

PROTECTION.

Private protection consists only of four chemical extinguishers distributed. One vertical pipe outlet was found but there was no hose so same was useless. Public protection is standard with excellent department 1-4 mile distant.

RECOMMENDATIONS.

1. Properly repair defective electric wiring.
2. Provide vertical pipe and hose system covering the risk. Hose should not be attached in the engine room and employes should be instructed to use same only in case of threatened serious damage to the property.

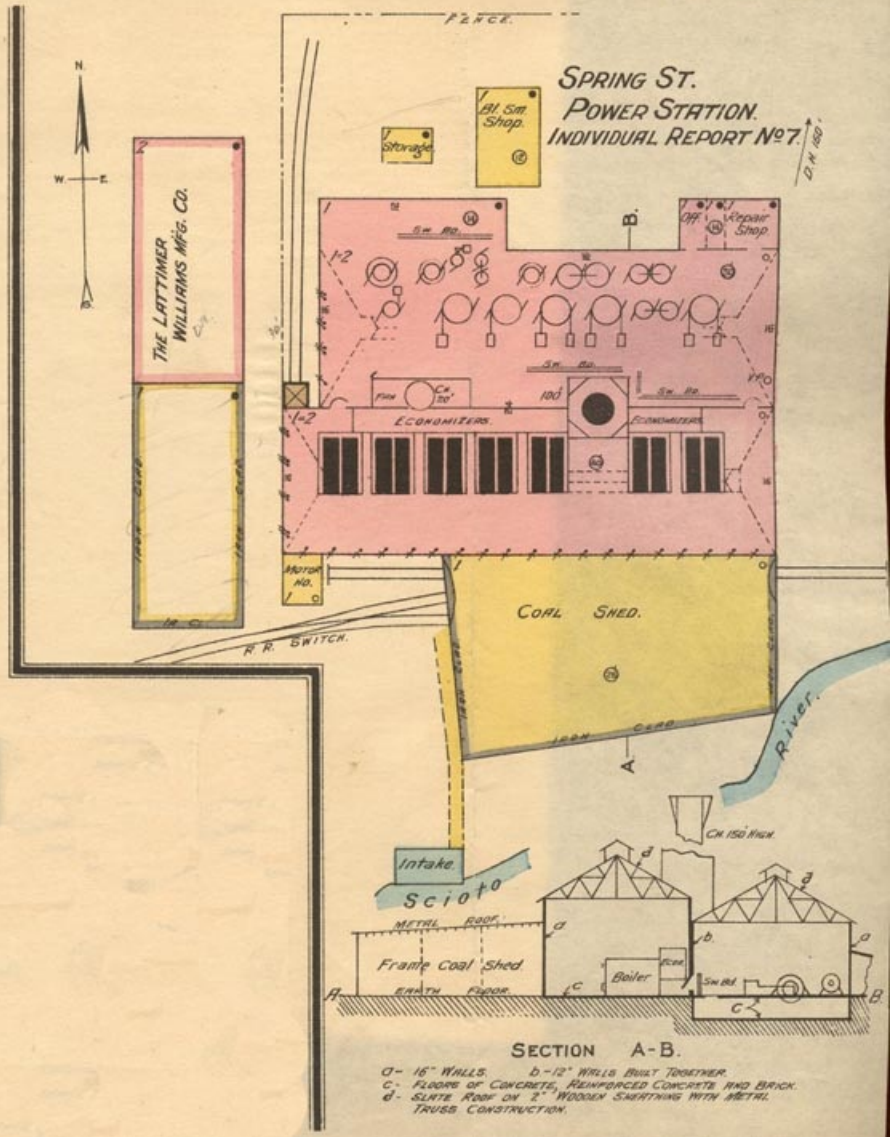
THE COLUMBUS RAILWAY AND LIGHT CO.

24" W. P.

D.H. 100'

W. SPRING ST.

OHIO INSPECTION BUREAU
T.B. SELLERS, MGR.
COLUMBUS, OHIO.
MARCH 1909.
SCALE 1" = 50' N.K.M.



SECTION A-B.

a- 16" WALLS. b-12" WALLS BUILT TOGETHER.
c- FLOORS OF CONCRETE, REINFORCED CONCRETE AND BRICK.
d- SLATE ROOF ON 2" WOODEN SHEATHING WITH METAL TRUSS CONSTRUCTION.