General Report No. 1786.

Individual Report No. 10.

Risk: Power House.

Location: Mound and 17th Sts., Columbus, Ohio.

Owner & Occupant: The Columbus Railway & Light Co.

Date: May, 1909.

See Map No. 7.

Class: 1 and 2-B

Risk No. 21

SUMMARY.

A I story brick power house with a small 2 story storage and repair shop section. The engine room and boiler room have division wall between but same has unprotected door opening and the construction of the roof is such as to make it one risk. The building is of substantial construction generally and a good one of its class. Considerable improvement has been made recently both in the elimination of hazards and increased fire protection so the risk today is in good condition. This risk until recently was controlled and insured by the Public Service Co. A small frame storage house and oil house are located across the alley.

PROMINENTLY DESIRABLE FEATURES.

Building is of substantial construction and cut up by walls which though not standard, provide considerable protection; hazards are well guarded and the premises kept in good condition; both private and public fire protection is good.

PROMINENTLY UNDESIRABLE FEATURES.

Division walls are not standard, boilers are not fully cut off, there are some frame partitions in the storage section and the roof structure is of combustible construction.

CONSTRUCTION.

I high story boiler room and engine room, 20 feet of the engine room having been walled off and used as a 2 story storage room. These sections are 30 feet to the eaves and immediately South is a brick coal storage section I story and 15 feet to the eaves. The engine room has a pipe basement. Area is 50 by 120 foot engine room and storage, 60 by 120 foot boiler room and 25 by 95 foot coal storage house all adjoining and communicating the total equaling 15575 square feet. Outside walls and the wall between the coal storage room and the boiler room are 12 inch and pilastered 4 by 24 inches on both sides 20 feet between centers, the division wall between the engine room and the boiler room being 16 inch and parapeted 12 inches above the roof but with door opening having a tin clad door of non standard construction. Roof is composition gravel on wooden sheathing and trusses, a frame glass sided roof lantern extending almost the length of each section the engine room and the boiler room. Floors throughout are of concrete or reinforced concrete. Interior finish is open except in the storage section which has frame partitions and is lath and plaster ceiled. The storage house and oil house are both frame structures with composition roofs but are so located as not to appreciably expose to the power house.

EXPOSURE.

There are no exposures.

OCCUPANCY.

Building is occupied for power house purposes only except that the exhaust steam is utilized

to supply a public heating system. The machinery consists of: six B. & W. boilers 350 H. P. in batteries of two boilers each, Green economizers, two boiler feed pumps, Alberger condenser, 8 by 12 foot steel water supply tank, Westinghouse—Parsons 1000 K. W. steam turbo-generator, 500 K. W. Bullock generator direct connected to cross compound engine, a 200 K. W. generator of the same type and drive, a 50 K. W. General Electric engine driven exciter, a 50 K. W. General Electric motor driven exciter, three current regulators, six oil insulated transformers, 16 panels high tension switchboard, 4 panels recording switchboard, and a 4 H. P. motor driving a small drill press, pipe cutter and emery wheel which are used in the repair shop.

HAZARDS.

Electric power generated here is 4400 volt, A. C., 3 phase, 60 cycle, and is used for commercial and City power and lighting service, and the exhaust steam from the engines enters a condenser where water is heated supplying a public heating system. Heating in the station is incidental. Lighting is electric arc and incandescent with wiring in excellent condition the same having been recently renewed and where possible is run in metal conduit. Power wiring throughout is well installed the wires from the generators to the switchboard being run in ducts in the floor or supported on insulators and from the switchboard to the outside in lead sheathed cable, the wires where bunched on the rear of the board being thouroughly flame proofed. Switchboard is of marble on angle iron frame and has equipment oil switches and resistance well installed. Lightning arresters are of the G. E. cylinder type and located on the last pole outside. Boilers are well set and arched, discharging gases into Green economizers connecting with brick stack 200 feet in height. Stack is protected from lightning by heavy rodding run to a permanent ground. All oils except a 2 gallon can of each kind used are kept in the outside oil house and oily waste is kept well cleaned up and deposited in metal waste cans.

ADMINISTRATION.

This risk was formerly owned and operated by the Public Service Co. but is now in the hands of the Columbus Railway & Light Co. who have made such improvements as are necessary for the best economy and efficiency as well as its safety from fire. Risk is in operation continuously with 35 men employed. Insurance is written under a general form covering on all the Public Service property.

PROTECTION.

Private protection consists of one 1-1-2 inch vertical pipe outlet in the engine room with 100 feet of 1-1-2 inch hose attached, and six approved hand chemical extinguishers distributed. Public protection is standard.

RECOMMENDATIONS.

Since this risk has been recently improved, further practical improvements are not evident. The management should see that all employes are instructed as to the proper use of fire protective devices and that care and cleanliness is maintained.

