

work in the package department had been obliged to depend on the stairway in the elevator tower, loss of life would have undoubtedly been much larger; or if the fire had occurred at night the panic that would have ensued when the power went off and lights went out, might have resulted in a much larger loss of life.

Lessons of the Fire.

Once again the importance of isolating hazardous processes is emphasized and it is suggested in order to secure a minimum damage from any possible explosion, a means for the explosion to vent itself be provided either by making the exterior walls of light curtain wall construction or providing large plain glass areas. It would seem advisable also to locate control valves at a safe distance from the buildings where such hazardous processes are carried on.

If in any way it can be ascertained that the coke gases in the Dry Kiln Room contributed to the intensity of the explosion, such methods of grain drying should be abandoned and some safer method such as steam drying adopted.

The complete failure of the Concrete Building shows the necessity of providing automatic sprinkler protection wherever the contents of a building are combustible, irrespective of the construction of the building; and the folly of constructing an otherwise fire-resistive building and then leaving large unprotected openings, such as the bag hoist openings in the Concrete Warehouse, is demonstrated.

The value of being prepared to utilize the equipment of a neighboring Fire Department even though the hose couplings had different threads is demonstrated by the way in which Peterboro was enabled to use the services of the Lindsay Fire Brigade.

Acknowledgment.

This report was made possible through the courtesy and cheerful co-operation of the Quaker Oats Company local officials; W. A. Howard, Fire Chief of Peterboro; Ross Dobbin, Waterworks Superintendent of Peterboro; Provincial Fire Marshal E. P. Heaton; E. H. Sigison, Manager, Buffalo Association of Fire Underwriters; David J. Price, Engineer, U. S. Bureau of Agriculture; Prof. I. H. Woolson, Consulting Engineer, National Board of Fire Underwriters; W. W. Pearse, City Architect, City of Toronto and T. D. Mylrea, Engineer of Tests, City Architect's Department, City of Toronto. The Quaker Oats Co. local officials gave permission to examine the ruins and with Fire Chief Howard and Waterworks Superintendent Dobbin answered various inquiries. Provincial Fire Marshal E. P. Heaton allowed our representatives to study the various exhibits filed with him at the time of the investigation. Mr. E. H. Sigison and David J. Price forwarded bulletins on the "Explosibility of Grain Dusts." Prof. Woolson took the trouble to ask a series of suggestive questions, the answering of which would tend to bring out many points of interest. W. W. Pearse granted permission to incorporate in the report a cut of the Concrete Warehouse and numerous photos taken by Mr. T. D. Mylrea who gave much valuable information, especially in connection with the Concrete Building.