

controlling the issue of detonators. Experiments were also made with the stone occurring with the coal, and it was demonstrated that minor explosions of the type recorded in many cases could be obtained with the stone found.

*Dangerous Goods.*—As forecast in last year's annual report, new regulations were prepared during the year. These were submitted in draft form to local authorities and to the trade, and after a number of conferences had been held with the various interests involved the amended regulations were gazetted on the 27th March, 1928. All regulations previously in force were repealed.

The new regulations provide fairly definite control for most of the operations of distribution and storage of petroleum. Notable amendments made are as follows:—

- (1) Marking: The regulations regarding marking have been amended to provide for the use of a label of the same shape and wording as hitherto prescribed, but providing for a red lettering on a white ground instead of black on red. This was done in order to facilitate the stencilling of the label on the woodwork of the cases.
- (2) Conveyance: The regulations control the transport of petrol in tank wagons and delivery into underground tanks. Standard specifications are provided for tank wagons. Provision is made to prevent the accumulation of petrol on wharves during discharge from ship.
- (3) Storage otherwise than in bulk: Provision is made that where petrol is stored in drums the full liquid contents stored in the depot shall be enclosed by a "well." Provision is also made permitting storage in drums in an earthen compound under conditions practically identical with those prescribed for storage in above-ground tanks.
- (4) Underground tanks: A number of amendments have been made in these regulations in consequence of the experience obtained during the past two years.
- (5) Pumps for petroleum spirit: Provision is made for all petrol-pumps to be approved by the Chief Inspector. Notification of such approval is to be published in the *Gazette*. The regulations also control the situation of petrol-pumps, and prohibit the installation of a battery of pumps inside a building unless the petrol-service area is separated from the remainder of the building by fire-resisting partition. Provision is made for the installation of fire-extinguishers in the vicinity of every pump, and for the prohibition of smoking and the running of the engine while motor-car tanks are being filled.
- (6) Storage of fuel oil: The use of fuel oil for heating services is steadily increasing, and the new regulations include provisions covering the installation and operation of fuel-oil plants.
- (7) Use of dangerous goods for dry-cleaning, &c.: Provisions are made governing the conditions permissible in premises where petroleum spirit and similar liquids are exposed for dry-cleaning and manufacturing work.
- (8) Accidents: The previous regulations contained a provision that accidents in the storage, transport, and use of dangerous goods should be notified to the Inspector for the licensing authority. This regulation was not complied with to any considerable extent, and very little information was obtained regarding these accidents. The new regulations contain a provision that the report regarding accidents must be forwarded to the Chief Inspector.
- (9) Containers for dangerous goods: Provision is made in the new regulations that all containers used for the transport and storage of dangerous goods shall be of a type approved by the Chief Inspector—such approval to be notified in the *Gazette*. Under this regulation it is not proposed to approve containers of less strength than those specified by the British and American railway authorities. Provision is also made controlling the sale, storage, and repair of empty containers.

*Petrol in Drums.*—During the past year a considerable trade has developed in the importation and sale of petrol in 45-gallon drums. A fair proportion of these drums were of a light steel type weighing about 50 lb. and known in America as the "single-trip" drum. A considerable amount of leakage was found in these containers, particularly on second handling. The practice of the companies concerned was to sell the drum with contents, and the accidents with drums referred to below indicate that there is considerable danger in the broadcasting of drums to persons who are not aware of the possible explosion hazard due to the gaseous mixture left in the drum after emptying.

*Local Authority Administration.*—Three new licensing authorities commenced the administration of the Act during the past year—Howick, Hikurangi, and Kaitaia. In consequence of the issue of new regulations it was necessary to have amended by-laws made, and notice was issued requiring all licensing authorities to make new by-laws. A draft of a suitable by-law was submitted for consideration by the authorities concerned, and the provisions of clause 15 of the Act were used to make the by-laws for practically all licensing authorities by Order in Council. These by-laws were gazetted with the regulations on the 27th March, 1928. With a few minor exceptions the administration by local authorities during the year has been satisfactory.

*Departmental Administration.*—The Department administers the Act in all districts other than those controlled by local authorities. During the year 1,397 licenses were issued, as compared with 1,161 during the previous year.