

Inspection and Testing.—Owing to the amount of work involved in the preparation of the Explosive and Dangerous Goods Amendment Act and regulations it has not been possible to do as much inspection-work as was anticipated in our last report. All districts in the South Island have been inspected during the year, but in the North Island the inspection has not been completed. A considerable amount of new ground has, however, been covered, and with the exception of the northern part of Poverty Bay every district has been inspected within the last eighteen months. As in past years, shipments of explosives arriving in New Zealand have been physically examined and tested for stability, and occasional tests made on explosives stored in Government and private magazines. The usual heat, silver-vessel, and moisture tests have also been made on military explosives for the Defence Department.

EXPLOSIVE AND DANGEROUS GOODS AMENDMENT ACT, 1920.

As forecasted in the last annual report, this Act provides for the issue of licenses and general administration by local authorities, but with the provision that where the local authority neglects or refuses to administer the Act it shall be administered by the Department.

In order to secure uniformity of administration it is provided that local-authority inspectors shall, for technical purposes, be under the control of the Chief Inspector, and the departmental Inspectors will in the course of their ordinary inspections throughout New Zealand visit premises licensed by local authorities in company with the local officer, and will advise the latter as to the interpretation of the regulations, and assist him in other ways.

Experience in other countries has shown that it is impracticable to include in the statute all the necessary details of a technical Act such as this, and the Act provides that most of the technical provisions shall be prescribed by Order in Council. Regulations were accordingly drafted in December, 1920, and were then submitted to a committee formed by the oil-importing companies, and the Department continued negotiations with this committee both by letter and interview until the regulations were finally gazetted at the end of April, 1921.

The months of January and February of the present year were spent by the officer in charge of the branch in visiting local authorities throughout New Zealand to discuss the provisions of the proposed regulations with the local officers who would administer the Act. The amended draft regulations were then printed, and copies were sent to ninety-five of the larger local authorities, to the committee representing the oil companies, to the Council of Fire Underwriters as representing the insurance companies, to the Wellington Automobile Club as representing the private-car owners, and to the Motor-garage Proprietors' Association as representing the garage trade. In each case the covering letter asked for comments on the regulations, and stated that these would be considered prior to the regulations being gazetted.

As a result of the representations made in the ensuing correspondence, and also of the deputation representing various interests which met the Hon. the Minister of Internal Affairs on the 14th April, a considerable number of amendments were made; and an undertaking was given that the regulations would not be enforced with respect to wholesale stores during the present year, and that in all cases reasonable time would be given to bring the premises into compliance with the Act.

The following are the principal provisions of the regulations:—

Exemptions.—No license is required for the storage of any quantity of benzine not exceeding 8½ gallons kept for private use if stored within a borough or town district, or 58 gallons if stored outside these areas. (This does not include the benzine stored in tanks of motor-cars, which is completely exempted under all circumstances.) Provision is made, however, that local authorities may make by-laws under which licenses may be issued for the storage of larger quantities of benzine either without fee or a nominal fee, and thus continue the practice at present in force in some boroughs.

It is considered that any quantity of benzine exceeding 8½ gallons stored under the conditions usually existing in private garages in town and suburban areas—where the garage and surrounding dwellings are wooden buildings—constitutes a serious fire risk. The issue of a license necessitates the inspection and approval of the premises, and is therefore the most convenient method of ensuring that satisfactory conditions are observed when larger quantities than 8½ gallons are stored. Practically all the local authorities which have made by-laws on the subject under the powers of the Explosive and Dangerous Goods Act, 1908, have followed section 27 of that Act and prescribed an exemption of either 8 or 10 gallons. When the draft regulations were discussed with the local-authority officers the opinion almost universally expressed was that the exemption limit of 8½ gallons (one case) should be continued.

Storage.—The regulations provide that in all cases the building shall be efficiently ventilated in order to prevent the formation, in case of leakage, of explosive or inflammable mixtures of petroleum-vapour and air. They also provide that provision must be made, either by isolating the store, by excavation, or by the erection of a sill across the doorway, to prevent the outflow from the storage place, in sufficient quantities to cause damage to surrounding buildings, of oil in case of leakage, or of burning-oil in case of fire. The "well" required will be not more than 9 in. deep in the case of a retail store or 3 ft. in the case of a wholesale depot. The storage building is required to be externally unflammable, and preferably constructed of brick, stone, or concrete. The use of a wooden-frame building covered with galvanized iron is permitted, but this type of store is required to be situated much farther from a dwelling or other protected building than a brick depot. The regulations will not prohibit the storage of reasonable quantities of benzine in a motor-garage of suitable construction or situated well away from dwellings, &c.

Where benzine is used as a solvent for trade purposes a considerable hazard is caused by the exposure of the benzine to the air, and the consequent formation of dangerous gases. The regulations