RECOMMENDED PRACTICE FOR LOCATION AND LAYOUT OF ROADSIDE MOTOR-FUEL FILLING AND MOTOR-FUEL FILLING-CUM SERVICE STATIONS (IRC) 12-1983

1. INTRODUCTION

1.1. The following principles have been laid down by the Specifications and Standards Committee (personnel given on the inside front and back cover) for general adoption after carefully considering the views of the representatives of major distributors of motor fuels.

1.2. The recommended practices for motor-fuel filling stations (IRC: 13) and motor-fuel filling-cum-service stations (IRC: 12) were originally published in 1954 and 1962 respectively. These were later converted into metric units in 1967. Draft for the present revised standard combining the earlier two recommended practices was prepared by a Working Group consisting of N. Sivaguru. A.Y. Gupte, Dr. N. S. Srinivasan and V. K. Arora after consulting representatives of the oil companies. This was approved by the Specifications and Standards Committee in its meeting held on the 24th May 1983. It was finally approved for publication by the Executive Committee through circulation and later on by the Council in their 108th meeting held at Pondicherry on the 21st August. 1983.

1.3. The revised Recommended Practice is meant primarily on new installations. However, while renewing licences for existing stations, each case of renewal of licence should be considered in its merits with particular reference to this recommended practice and requirements of traffic safety.

2. THE BASIC PRINCIPLES

The governing consideration is to minimize, as much as possible, interference to normal flow of traffic on the road by vehicles using the amenity and also to ensure safety.

3. CLEARANCE FROM ROAD AUTHORITY

The sanctioning authority, if it is not the Road Authority should obtain clearance from the appropriate Road Authority for the site and the layout before according the sanction.

4. GENERAL CONDITIONS OF SITING

4.1. As a general rule, the clear distance between two adjacent fuel filling stations (these will also include fuel filling-cum-service stations) should not be less than 300 metres.

4.2. Clustering of fuel filling stations along the highway should be avoided and successive fuel filling stations should be located sufficiently apart, as indicated in paragraph 4.1.If for some reason two or more fuel filling stations are sited in close proximity, these should be grouped together and a parallel service road provided by way of common access. The service road should be of adequate width and at least two-lane wide.

4.3. Fuel filling stations should be well distributed on both sides of the road so that vehicles do not have to cut across the traffic to reach a fuel filling station. The fuel filling station on opposite sides shall be staggered.

4.4. Siting of fuel filling stations near existing check barriers should be avoided. They should be at least 1 km away from the check barrier.

4.5. In the case of new roads or bye-passes, it will be desirable to plan the position of the fuel filling stations in advance in conjunction with other infrastructural requirements,

such as eating places and arrange land accordingly. This will enable the development of a proper complex with a single access.

4.6. It should be ensured that the location of a fuel filling station does not interfere with future improvements to the road and the nearby junction.

4.7. The distance between the tangent points of the curves of the side road and that of the fuel filling station as shown in Plate, measured in a direction parallel to the centre line of the road should not be less than 100 metres and the station should be located only in the outbound direction as shown in the Plate. However, on expressway and arterial road having dual carriage way. the distance from a junction should not be less than 300 metres.

4.8. As far as possible in plain and rolling terrain, the fuel filling station should be located where the highway is practically level. However, in hilly terrain the fuel filling station should be sited only along such highway sections which are having gradients not steeper than 5 percent. In all these cases, it should be ensured that the service area is almost level.

5. FRONTAGE

For easy flow of vehicles into and out of the fuel filling station, the site should permit construction of wide entrance and exit with easy curves. It is, therefore, desirable to have the longest possible frontage, the minimum being 30 metres (see Plate).

6. BUFFER STRIP

6.1. A buffer strip of at least 12 metres long and 3 metres wide should be provided.

6.2. No structure or hoarding except approved standard identification signs on poles providing a clearance of at least 3 metres above ground level should be erected on the buffer strip. Desirably, 150 mm high kerbs should be constructed on the periphery of the buffer strip to avoid vehicles crossing it.

6.3 The outer edge of buffer strip should be along the outer edge of road land boundary for rural sections and that of footpath or cycle track or service road, if any,for urban sections. However, the future widening of the road should be kept in mind so that there is no obstruction to the improvement to the road. In all such cases, the distance from the outer edge of buffer strip from the centre line of the carriageway should not be less than 7 metres for National Highways and State High ways and 6 metres for other roads where no cycle tracks are required now or in future and this distance should not be less than 12 metres where cycle tracks exist or may be required in future. In case of dual carriageway, these distances should be measured from the centre line of the nearest two lanes of the carriageway.

7. VISIBILITY

7.1. Vehicles entering or leaving the fuel filling station should be fully visible to the traffic using the main road. This is best done by selecting a site where there are no obstructions to the view between the fuel pump and the road.

7.2. No hedges or plants more than 600 mm high should be grown on or around the buffer strip.

8. LAYOUT OF ENTRANCE AND EXIT

The entrance and exit should be at least 9 metres wide, the ruling radius of the curves being 30 metres and the absolute minimum 13 metres. This is illustrated in the Plate.

9. KIOSK, LUBRITORIUM AND OTHER BUILDINGS

The kiosk, lubritorium and other appurtenances thereto, comprising a small office, store and compressor room should be located not less than 4 metres away from the fuel pump kerbing.

10. DISTANCE OF THE FUEL PUMP FROM THE CARRIAGEWAY

The fuel pump shall be outside the road land, subject to the provision that the distance from the outer edge of buffer strip to the edge of the strip having the fuel pump should not be less than 7 metres.

11. SPACE INSIDE THE FUEL FILLING STATION

There should be sufficient standing space inside the fuel filling station for vehicles to wait for their turn. In order to reduce the number of waiting vehicles, it is desirable to have oil. air. etc. installed at some distance from the fuel filling pump so that vehicles which have been refuelled can immediately be drawn away from the fuel pump. There should be adequate drainage arrangements in the fuel filling station so that the surface water does not flow over the highway but is collected in suitable drains and led away to a natural course. Culverts should be provided at the approaches to facilitate drainage wherever necessary.

12. SIGN BOARDS

Suitable entry and exit sign boards should be put up to guide vehicles during the day and these should be properly lit to guide them at night.

13. TYPICAL PL AN

The standards recommended above are illustrated in Plate.