

## MINISTRY DIRECTIVE

Program: Provincial Highways

Directive: PHY-B-027

Issuing Authority: Executive Director, Highway Engineering Division

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TO: Assistant Deputy Ministers, Executive Directors, Regional Directors, Directors, District Engineers, Regional Managers, Office Managers

SUBJECT: Highway Illumination - High Pressure Sodium Luminaires

PURPOSE: To introduce the adoption by the Ministry of high pressure sodium (HPS) as the conventional light source.

### BACKGROUND:

In the past the conventional light source used by the Ministry has been mercury vapour, which has provided adequate service performance with a long life lamp.

The increasing cost of electrical energy combined with the more efficient operation of high pressure sodium luminaires compared to mercury vapour makes this system more attractive with respect to annual operating costs.

In addition, a high pressure sodium lighting system uses less total energy than a mercury vapour system, thus supporting the Government's energy conservation policy.

### GENERAL:

H.P.S. lamps are now available in several sizes such as 70W, 150W, 250W and 400W. It is expected that 50W and 200W lamps will be available near the end of 1979 which, if proven successful, will give MTC even more flexibility in its choice of future designs. New MTC designs could utilize any of these lamp sizes without undertaking specific costs studies. Mercury vapour and low pressure sodium will not be considered in future designs unless there is a specific reason for considering same; i.e. where there are particular features appearing to give the desired benefits in a specific application.

For maintenance of HPS systems it is expected that lamps will be spot replaced as burnouts occur, and that pending the outcome of future field experience, a group relamping policy may be developed.

**POLICY:** That high pressure sodium be formally accepted as the conventional Ministry light source for new installations.

The conversion of existing systems to H.P.S. be held in abeyance until criteria have been developed respecting the timing and extent of necessary field revisions.

**IMPLEMENTATION:**

This policy is to be put into effect on current projects where the design has not progressed to the point where extensive redesign would be required to changeover to high pressure sodium luminaires.

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