

BC MINISTRY OF TRANSPORTATION

Electrical Maintenance Specification E-330 (Version 6 – May/05)

TUNNEL AND SNOWSHED LIGHTING MAINTENANCE

1. OBJECTIVE

- To ensure that Tunnel and Snowshed Lighting is operational and functions in accordance with their design and Ministry standards.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

- All services for this Electrical Maintenance Specification are routine.

2.2 Additional Services

- Not applicable to this Electrical Maintenance Specification.

3. DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

The Contractor must:

- a) repair or replace Tunnel and Snowshed Lighting and their components;
- b) perform preventative maintenance;
- c) replace all Tunnel and Snowshed Lighting high pressure sodium lamps;
- d) spot relamp and clean all Tunnel and Snowshed Lighting luminaries;
- e) notify the PHCC of any malfunctioning Tunnel and Snowshed Lighting causing a traffic disruption and inform the PHCC when repaired;

- f) remove or cover graffiti in accordance with the *Highway Maintenance Specification – Litter collection and Graffiti Removal*;
- g) mark the replacement lamps with the date of replacement; and
- h) document all activities related to electrical maintenance of Tunnel and Snowshed Lighting including but not limited to field inspections, patrols, testing, complaints received / responses made, and all changes made to the equipment and operations.

3.1.1 Performance Time Frames

The following establishes the maximum time, from the time the deficiency was detected or reported to the Contractor, within which the Contractor must Respond to deficiencies:

- a) repair any Tunnel and Snowshed Lighting that constitutes a safety hazard to the Highway User within 1 hour from the time the deficiency was detected by or reported to the Contractor;
- b) repair or replace Tunnel and Snowshed Lighting and their components that create traffic disruptions within 1 hour from the time the deficiency was detected by, or reported to the Contractor;
- c) repair or replace Tunnel and Snowshed Lighting and/or their components that do not create a safety hazard, do not cause traffic disruptions, and are structurally sound but have identified deficiencies within three months;
- d) repair or replace Tunnel and Snowshed Lighting and/or their components within one hour if:
 - three (3) adjacent luminaries or more than 10 % of the luminaries in the tunnel on the emergency/night circuit are not operational in a tunnel or snowshed;
 - more than 33 % of the luminaries for a given daytime circuit are not operational in a tunnel.

- f) repair or replace Tunnel and Snowshed Lighting and/or their components within 7 days if:
 - two (2) adjacent luminaries on the emergency/night circuit are not operational in a tunnel or snowshed;
- g) replace all Tunnel and Snowshed Lighting lamps every 48 months;
- h) spot relamp and clean all Tunnel and Snowshed Lighting luminaries every 6 months;
- i) notify the PHCC of any malfunctioning Tunnel and Snowshed Lighting causing a traffic disruption within 5 minutes from the time the malfunction was detected by or reported to the Contractor and inform the PHCC when repaired;
- j) remove or cover graffiti in accordance with the *Highway Maintenance Specification – Litter collection and Graffiti Removal*;
- k) mark the replacement lamps with the date at the time of replacement; and
- l) document all activities related to electrical maintenance of Tunnel and Snowshed Lighting including but not limited to field inspections, patrols, testing, complaints received / responses made, and all changes made to the equipment and operations immediately.

3.2 Additional Services

- Not applicable to this Electrical Maintenance Specification.

3.3 Materials

- Refer to the Introduction.