APPENDIX E

Note: This Appendix is for reference only. Contractor is responsible to coordinate with Newfoundland Power Representative and use the latest edition of this document.

General

Three phase padmount transformer are generally used to serve large loads of 250 kVA demand or greater where it is impractical to install an overhead transformer bank because of aesthetic reasons or physical limitation. These transformers are to be installed on a pad outlined on 28-5 and connected in accordance with 28-6.

Location & Site Preparation

The location for the transformer shall be selected such that vehicular access can be maintained for its installation and removal, the transformer is not in close proximity (less than three metres) from grounded objects, and the length of secondary cable run is minimized. The requirements of the Canadian Electrical Code C22.1, Rule 26-242 regarding liquid filled pad-mounted distribution transformers in proximity to materials or buildings shall be met. Adequate clearance shall be provided to enable doors to swing fully open and to allow for hot stick operation of loadbreak elbows by workmen.

The site for the transformer pad shall be well prepared with compact backfill. Grading shall be away from the transformer and adjacent building to ensure proper drainage of surface water away from the transformer and any oil leakage away from the building.

Additional Protection

When the transformer is installed on or near a parking lot or other location where vehicular damage may occur, additional mechanical protection shall be provided for the transformer. This mechanical protection shall consist of either:

(a) Posts – hollow structural steel, 100 mm x 100 x 6 mm thick, or steel pipe 100 mm dia x 8 mm thick, 2.4 m long set 1.2 m in concrete at 1.5 m intervals. Post shall be located a minimum of 1.0 m from transformer pad and conspicuously marked with a highly visible paint and capped.

(b) Chain link fence – 1.8 m high located 1.0 m from transformer pad with post set 1.2 m in concrete. Fence shall incorporate a double gate at least 2.5 m wide centered on the same side as the transformer doors.

REGISTERED PROFESSIONAL ENGINEER
R. KEITH WHITEWAY
SIGNATURE
99-12-14
DATE
NEWFOUNDLAND & LABRADOR

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DISTRIBUTION STANDARDS

NEWFOUNDLAND POWER
A FORTIS COMPANY

THREE PHASE PADMOUNT TRANSFORMERS

Date: 1999 09 30

STD. No. 28 - 1

APP:

Transformer Fusing

A radial feed transformer shall be fused at the terminal pole as illustrated in Section 27. Current limiting fuses shall be installed in series with the cutouts if the fault level exceed the interrupting rating of the cutout per 14-6.

Loop feed transformers may be utilized in some special applications. For this type transformer, the fuses will be an integral part of the transformer.

The size and type of fuse for each transformer size is listed on 28-7.

Signs

Prior to being energized, warning signs shall be placed on the transformer indicating the presence of cables in the area and that a hazard exists should the transformer door be open.

The primary cable shall be identified at the transformer and at the terminal pole.

The transformer door shall be fastened with a tamper proof bolt, in addition to being padlocked.