

1 Q. **Reference: Program 14: Replace Disconnects (2027–2029) page 2, lines 26-27**

2 Hydro monitors the condition of its switches by conducting regular visual inspections of the
3 units and reviewing reports completed by field staff who operate these switches.

4 a) Provide a sample report for both a disconnect switch with and without deficiencies.

5 b) Are disconnect switches operated during the visual inspection? If not, what can be
6 assessed by the visual inspection of a normally open or normally closed disconnect
7 switch?

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10 A. a) Newfoundland and Labrador Hydro's ("Hydro") Terminal Station Asset Management
11 Strategy states "Hydro monitors the condition of its switches by conducting regular visual
12 inspections of the units as part of its Terminal Station and Infrared Inspection Programs
13 and by reviewing reports from the JDE E1 work order system or staff who operate the
14 switch." Of the work orders in JD Edwards Enterprise 1 ("JDE E1"), there is also three- or
15 six-year outage preventative maintenance (depending on location and environmental
16 concerns) on disconnects that includes a hands-on inspection, lubrication and operation.
17 Deficiencies are identified through work order reports field staff complete from: (i) visual
18 inspections (completed at 120/180 days depending on criticality of station); (ii) infrared
19 inspections (completed annually); and (iii) the outage inspections (completed at three or
20 six year). Please see PUB-NLH-043, Attachment 1 and 2 for a sample report of a disconnect
21 with and without deficiencies, respectively.¹

22 b) Hydro does not operate disconnects during visual inspections. What can be accessed
23 during a visual inspection on a normally open or closed disconnect would include: blade
24 alignment and indication of overheating, insulators condition, grounding condition,

¹ Attachment 1 and 2 are preventative maintenance reports, and do not include visual inspection results.

- 1 operator junction box and conduit condition, structure and base condition, motor
- 2 operator voltage is measured, and heaters are checked to confirm operational.

6 YEAR PM - DISCONNECT SWITCH (Manual)

Equipment ID: BIL56-2Station: BCVTSJDE W/O #: 2051972Manufacturer: PURSLEY.Date: AUG 06, 2025Readings By: MC, TRNAMEPLATE PICTURESOK Take nameplate picture of disconnect and send to LTAP (ie. Send as email/message or attach to completed W/O)OK Take nameplate picture of disconnect operator and send to LTAP (ie. Send as email/ message or attach to Completed W/O

Note Any Concerns Below:

→ NAMEPLATES SENT TO DEAN FOR SCAN.SUPERVISOR: dean diamond

DATE: _____

6 YEAR PM - DISCONNECT SWITCH (Manual)

Equipment ID: BIL56-2
Manufacturer: PURSLEY

Station: BCVTS
Date: AUGUST 06, 2025

JDE W/O #: 2051972
Readings By: MC, TR

CHECKS COMPLETED:

GENERAL

OK Check disconnect blades for alignment. ADJUSTED ALIGNMENT A LITTLE.

OK Check ground blades for alignment. If equipped.

OK Check insulators for signs of burns, flashover and cracks.

OK Clean insulators as necessary.

OK Check structure condition and concrete base.

OK Check line connections to switch. Ensure minimum of stress on insulator stack.

OK Check Switch Grounding including Main Switch, Handle/Wheel, Ground Mat, etc.

OK Check locks.

MAIN CONTACTS, INTER LINKAGE AND GROUND SLIDE CONTACTS

OK Check and lubricate as required; main contacts, inter linkages and ground-slide contacts.

OK Check mechanical stops and conductor terminations.

OK Check contact pressure and observe jaw spread. (On Kearney switches observe blade is positioned opposite pressure springs).

OK Check arcing horns and remove beads caused by burning.

OK Check all connections & tighten as necessary. NEW PADS INSTALLED.

OK Examine contacts for burns, corrosion and wear. Including Ground Contacts if applicable.

OK Check the silver plating for peeling or deterioration.

OK Check condition of shunt braids or wiping contact.

OK Check gear boxes for moisture and lubricate gears. ADJUSTED GEAR BOX.

OK Operate manually and observe for ease of operation including ground operation if applicable.

→ ITS OPERATING BUT VERY STIFF. DISCONNECT ALL LINKAGES AND LUBRICATED TWICE. DID FREE A LITTLE BUT STILL VERY STIFF.

6 YEAR PM - DISCONNECT SWITCH (Motorized)

Equipment ID: B5B53-2 Station: BBKTS2 JDE W/O #: 2063352
Manufacturer: CLEAULAND Date: 2025/09/16 Readings By: DS/SD/PC

*Disconnect should be operated manually first to ensure OPEN & CLOSE limits are good and ease of movement
Re: not to bind or break any stops before doing maintenance.

CHECKS COMPLETED:

GENERAL

- ☒ Check disconnect blades for alignment.
- ☒ Check ground blades for alignment. If equipped.
- ☒ Check insulators for signs of burns, flashover and cracks.
- ☒ Clean insulators as necessary.
- ☒ Check structure condition and concrete base.
- ☒ Check line connections to switch. Ensure minimum of stress on insulator stack.
- ☒ Check Switch Grounding including Main Switch, Handle/Wheel, Ground Mat, etc.
- ☒ Check locks.

MAIN CONTACTS, INTER LINKAGE AND GROUND SLIDE CONTACTS

- ☒ Operate manually and observe for ease of operation including ground operation if applicable.
- ☒ Check and lubricate as required: main contacts, inter linkages and ground-slide contacts.
- ☒ Check mechanical stops and conductor terminations.
- ☒ Check contact pressure and observe jaw spread. (On Kearney switches observe blade is positioned opposite pressure springs).
- ☒ Check arcing horns and remove beads caused by burning.
- ☒ Check all connections and tighten as necessary.
- ☒ Examine contacts for burns, corrosion and wear. Including Ground Contacts if applicable.
- ☒ Check the silver plating for peeling or deterioration.
- ☒ Check condition of shunt braids or wiping contact.
- ☒ Check gear boxes for moisture and lubricate gears.

6 YEAR PM - DISCONNECT SWITCH (Motorized)

Equipment ID: B5B53-2 Station: BBKTSZ JDE W/O #: 2063352
Manufacturer: CLEAULAND Date: 2025/09/16 Readings By: DS/SD/PC
PRICE

VACUUM MODULES (LOAD BREAK) DISCONNECTS

- ☒ Check & paint interrupter housing if required. (Use manufactures recommended paint.)
☒ Complete continuity resistance (Ductor) test each vacuum modules. (Max 1500 Micro Ω each Module)
NOTE: Overall Micro Ω value is number of modules x 1500

INTERRUPTER RESISTANCE		
PHASE	% CURRENT	MICRO Ω
A	/	/
B	/	/
C	/	/

MOTOR

- ☒ Check cable terminations.
- ☒ Check and clean auxiliary contacts and switches.
- ☒ Check operating limits and indicating lights.
- ☒ Apply oil to main bearings.
- ☒ Apply a light film of multi-purpose grease to gear train.
- ☒ Check local/remote disconnect operation.
- ☒ Check motor and brake condition.
- ☒ Check De-coupling /inoperative function
- ☒ Check interlocks and locking devices.
- ☒ Operate electrically and observe operation.

Motor Open: 2.8 amps Motor Close: 3.1 amps
Motor Voltage: 133.5 volts DC Heater: 1.7A amps