Aerial Devices

1.0 Purpose

The purpose of this procedure is to outline the safety requirements for work involving aerial devices.

2.0 Scope

This procedure applies to all Newfoundland Power employees and contractors acting on behalf of the Company.

3.0 General

Newfoundland Power will manage work involving aerial devices to ensure a safe work environment exists.

4.0 Responsibilities

4.1 Directors shall ensure that Newfoundland Power employees, and contractors acting on behalf of the Company, follow these requirements.

5.0 Description of Activity

5.1 Only authorized persons who are properly trained and qualified shall use or operate this equipment.

5.2 The operating instruction manuals issued by the manufacturer shall be kept on the aerial device for reference by the crew and shall be followed.
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### 5.3 Prior to each shift, the aerial device must be inspected by the operator and documented. As a part of this pre-shift inspection the hydraulic system (holding valves) and the lift controls shall be checked and tested. Malfunctions or unsafe operational conditions shall be reported to the person in charge. Any condition that could endanger workers shall be remedied before the aerial device is used.

### 5.4 Load limits of the boom and bucket shall not be exceeded.

### 5.5 Aerial lifts shall not be field modified unless such modification is certified by the manufacturer. The insulated portion shall not be altered in any manner that might reduce its insulating value.

### 5.6 When aloft in a bucket, an approved body harness and shock absorbing lanyard shall be worn at all times and attached to the aerial device by an approved method.

### 5.7 Outriggers shall be placed on outrigger pads to provide maximum vehicle stability and firm footing. Field conditions may exempt the use of outrigger pads only when natural or man made footing is deemed at least equivalent to the pad.

### 5.8 Before raising or lowering outriggers, the operator shall ensure no person is in a position where they may be injured.

### 5.9 No person shall stand on top of a bucket; planks shall not be placed across a bucket, nor ladders used in or on a bucket.

### 5.10 Except in case of an emergency, lower level controls shall not be operated unless permission has been obtained from the employee in the bucket.

### 5.11 Climbers shall not be worn by employees while in the bucket.

### 5.12 Safety rules governing the use of hot line tools, rubber and personal protective equipment, and general safe practices, shall also apply to work done from an aerial bucket.
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5.13 When a boom must be maneuvered over a street or highway, necessary precautions shall be taken to avoid accidents with traffic and pedestrians. Traffic Control Persons shall be used when necessary.

5.14 The operator shall always face in the direction in which the bucket is moving and he shall ensure that the path of the boom or bucket is clear when it is being moved.

5.15 When using hydraulic tools in a bucket, the operator shall ensure that the hose lines do not become entangled in the operational controls.

5.16 On steep hills, radial boom derrick (RBD) trucks shall either be headed uphill or downhill, and all work done with the boom pointed uphill.

5.17 The truck shall not be moved unless the boom is lowered, cradled and secured and the outriggers retracted.

5.18 Emergency lowering of the boom by release of holding valves shall not be attempted while the bucket is occupied. All aerial devices shall be equipped with controlled descent devices which shall be placed in the bucket when there is no employee stationed on the ground.

5.19 All emergency and parking brakes, as well as wheel chocks, shall be applied before working aloft. Wheel chocks shall be set so that downward pressure is applied to the wheel chock. On a slope, chock both wheels on the downhill side. On level ground, chock both sides of one wheel.

5.20 To ensure stability, aerial devices shall not be operated at an angle greater than five degrees side to side or front to back. If normal setup of the vehicle cannot achieve five degrees or less, slope copers and/or cribbing shall be used to achieve this setup.

5.21 Hydraulic hoses and tools shall be stored properly in a locker during travel to and from the work site.

5.22 Bucket tool bags shall be removed and properly stored during travel to and from the work site.
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5.23 Transformer(s) must be tied down and secured to the vehicle by two separate means when being transported to and from the worksite.

5.24 Synthetic slings and shackles shall be removed from winch lines and stored away from sunlight and contaminants when not in use. Proper storage can reduce unnecessary deterioration of slings.

5.25 Tension shall be applied on the winch line while raising or lowering when slack is present. Guiding the winch line can prevent winch from coming off the drum and becoming entangled.

5.26 Bucket(s) shall have an approved top cover when buckets are not in use.

5.27 Boom and lower insert fiberglass sections shall be covered with approved covers during travel to and from worksite. These covers shall be removed during high voltage rubber glove work.

5.28 Operators at the lower controls shall stand on the vehicle or on the operating platform. When using a remote control connected to boom truck outside of substations, operators must use a ground mat bonded to the vehicle or remain on the vehicle or operating platform.

5.29 Aerial devices shall be grounded in accordance with the Grounding & Bonding Code.

5.30 All workers standing on the ground shall avoid contact with the vehicle. Permission to access the vehicle shall only be granted by the operator who shall refrain from operating the boom until all workers are again clear of the vehicle.

5.31 The conductor holder must never handle energized conductor with the jib fully retracted. As an operating standard, the jib has to be extended so that there is a minimum separation of twelve inches between the conductor holder and the jib extension bracket.

5.32 Aerial devices not equipped with a lower test electrode system shall only perform rubber glove work up to and including 15kV phase-to-phase.
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5.33 Aerial devices equipped with the lower test electrode system shall be subjected to a metered current leakage test prior to performing any rubber glove work on circuits up to 25kV phase-to-phase. All results of the tests shall be recorded in the aerial device leakage current log book.

5.34 All insulated aerial devices shall be checked for contamination prior to the first job of the day (25kV) or the first job of the week (12.5kV).

5.35 When setting up an aerial device on ice/snow covered roads, every effort shall be taken to remove ice/snow from where the outriggers/outrigger pads are to be positioned.

5.36 When cutting a pole from an aerial device and manually handling is required, cut pole in a 2’ pieces or less so that the pieces of pole can be easily handled and lowered in a safe manner.

5.37 When disconnecting or connecting hydraulic fittings in the upper and lower tool circuit, ensure that the unit is shutdown/turned off. This added procedure will eliminate fluid leaks that could occur under pressure through faulty fittings.

5.38 Winch lines shall be thoroughly inspected every 4 months using Form # 528 Vehicle Equipment Inspection Report (Electrical Operations). The winch line shall be replaced as required.

6.0 References

6.1 Reference Documents

- Grounding & Bonding Code

6.2 Related Hazards

- No related hazards

6.3 Legal and Other Requirements
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- Occupational Health and Safety Regulations
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7.0 Records

- No records

8.0 Glossary

- RBD - radial boom derrick