

CHAPTER 7

CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CHAPTER 7

MAINTENANCE

This chapter is intended to provide details of the maintenance activities essential for good operation and long life of components.

This information is not intended to replace the Manufacturer's literature but instead be read in conjunction with Manufacturer's literature. A comprehensive maintenance schedule should be developed by the operator and coordinated with the maintenance managements systems currently available within the Department of Public Works of the Government of the Northwest Territories. In the event of a conflict between listed maintenance activities and manufacturer's maintenance activities the manufacturer's information shall govern.



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CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY	- BUILDING	ACTIVITY	- CUSTODIAL
COMPONENT	- N/A		
FREQUENCY OF SERVICE	- Monthly		
EQUIPMENT	- Buffing machine		
CREW	- 1 person		
PRODUCTIVITY	- 1.0 h/100 m ²		
<p><u>MONTHLY</u></p> <ul style="list-style-type: none">- Remove stubborn stains from the floor.- Dust mop floor.- Wash floor.			
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CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY - BUILDING	ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE
COMPONENT	- Exhaust Fans, Ventilation System
FREQUENCY OF SERVICE	- See below
EQUIPMENT	- Flashlight, oil, rags
CREW	- 1 person
PRODUCTIVITY	- See below
<p><u>MONTHLY</u> (0.33 h/unit)</p> <ul style="list-style-type: none">- Visually inspect operation. Inspect drive, sheaves for wear and alignment.- Inspect belts for wear and tension.- Hold hand on motor. Check for overheating or unusual vibration.- Check settings on space thermostats <p><u>QUARTERLY</u> (0.33 h/unit)</p> <ul style="list-style-type: none">- Lubricate motor with SAE #20 oil.- Lubricate shaft bearings with SAE #50 oil.- Wipe off excess oil.- Check belt alignment. <p><u>ANNUALLY</u> (1 h/unit)</p> <ul style="list-style-type: none">- Clean all surfaces with damp cloth and mild detergent- Check and clean fan blades, dampers and cover.	
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CAPE DORSET TRUCKFILL STATION

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CATEGORY	- BUILDING	ACTIVITY	- EQUIPMENT PREVENTATIVE MAINTENANCE
COMPONENT	- Air Handling Unit (Supply Fan)		
FREQUENCY OF SERVICE	- See below		
EQUIPMENT	- Rags, oil, grease, spare belts, spare filter		
CREW	- 1 person		
PRODUCTIVITY	- See below		
 <u>WEEKLY</u> (0.083 h/unit)			
- Visually inspect operation. Listen for unusual noises.			
- Hold hand on motor. Check for overheating or excessive vibration.			
 <u>MONTHLY</u> (0.5 h/unit)			
- Shut off fans and inspect drive assembly, alignment.			
- Check belts for wear and tension. Belts should deflect 13 mm to 19 mm when pressed by hand. Replace belts as required.			
- Check filters. Replace if necessary.			
- Restart units.			
 <u>QUARTERLY</u> (0.5 h/unit)			
- Add 2 squirts of grease to fan bearings.			
- Lubricate fan motor with SAE #20 oil.			
- Wipe off excess grease and oil.			
 <u>ANNUALLY</u> (1 h/unit)			
- Clean all surfaces with damp cloth and mild detergent.			
- Clean direct from heating coils with vacuum cleaner.			
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CATEGORY	- BUILDING	ACTIVITY	- EQUIPMENT PREVENTATIVE MAINTENANCE
COMPONENT	- Boiler - Oil Fired		
FREQUENCY OF SERVICE	- See below		
EQUIPMENT	- Oil, rags, spare gasket, filter, brush		
CREW	- 1 person		
PRODUCTIVITY	- See below		
<p><u>WEEKLY</u> (0.1 h/unit)</p> <ul style="list-style-type: none">- Visually check operation. Check boiler temperature 60° (140°F) minimum, 82.2°C (180°F) maximum.- Check flame. If smoky, call servicer immediately.- Check fuel lines and tanks for leakage.- Check barometric draft regulator. <p><u>MONTHLY</u> (0.25 h/unit)</p> <ul style="list-style-type: none">- Open blow down valve for 10 seconds, close again.- Observe colour of combustion flame. Call servicer immediately if smoky.- Check for unusual noise or vibration.- Check air supply opening and burner fan and remove any foreign particles.- Check relief valve for leaks.- Check oil supply. <p><u>QUARTERLY</u> (0.083 h/unit)</p> <ul style="list-style-type: none">- Fill oil cups on burner motor with SAE #20 oil.- Wipe excess oil off motor. <p><u>ANNUALLY</u> (6 h/unit)</p> <ul style="list-style-type: none">- Shut down boiler. Shut water and oil supply valves. Shut off power at breaker panel.- Allow boiler to cool down.- Clean water strainers.- Keep boiler room well ventilated during shutdown to prevent rusting and sweating.- Remove oil line strainer. Replace oil line filter. Re-assemble using good gasket.- Clean burner fan.- Have servicer inspect boiler, adjust or replace electrodes and nozzles and inspect controls. Re-assemble and test system.- Check condition of fire box and clean chimney.- Verify that the Provincial Boiler Inspector has safety checked the boiler(s) within the previous year by checking the boiler certificate on the boiler room wall. <p>Refer to Manufacturer's literature for more detail.</p>			
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CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY	- BUILDINGS	ACTIVITY	- EQUIPMENT PREVENTATIVE MAINTENANCE
COMPONENT	- Domestic Circulating Pumps, Glycol Pumps		
FREQUENCY OF SERVICE	- Shown below		
EQUIPMENT	- Rags, oil, wrench		
CREW	- 1 person		
PRODUCTIVITY	- See below		
 <u>WEEKLY</u> (0.083 h/unit)			
<ul style="list-style-type: none">- Visually inspect operation. Place hand on motors. Feel for unusual vibration or high temperatures.- Check oil level in pump oil cup. Fill to level indicator with SAE #20 oil if required.- Wipe off excess oil.- Inspect all piping and valves for leaks.			
 <u>QUARTERLY</u> (0.16 h/unit)			
<ul style="list-style-type: none">- Check pump seal for leakage.- Check mounting bolts for tightness.- Fill oil cups on motor with SAE #20 oil.- Wipe off excess oil.- Wipe pump and motor with clean dry cloth.			
 <u>ANNUALLY</u> (0.5 h/unit)			
<ul style="list-style-type: none">- Tighten all bolts.- Check couplings and alignments.			
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**CAPE DORSET TRUCKFILL STATION
MAINTENANCE**

CATEGORY - BUILDINGS	ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE
COMPONENT	- Exits and Lighting
FREQUENCY OF SERVICE	- Shown below
EQUIPMENT	- N/A
CREW	- 1 person
PRODUCTIVITY	- 0.5 h/building
<p><u>DAILY (Exits)</u></p> <ul style="list-style-type: none">- Exits are to be properly illuminated.- Ensure exterior lighting is in proper working order.- Exits are to be checked to ensure proper operation of doors and door hardware.- Ensure doors open outwards in the same direction as exit travel.- Ensure emergency hardware is working properly and that a pressure of not more than 9 kg is needed to open door.- During winter months, ensure that snow and ice are not allowed to accumulate as to prevent the door opening.- The chaining of doors is strictly forbidden.- Corridors and passageways are to be kept clear at all times.- Ensure that exterior landings, stairs and handrails have not deteriorated or become loose (on fuel tank access). <p><u>DAILY (Exit Lighting)</u></p> <ul style="list-style-type: none">- Ensure lighting is in proper working order and replace bulbs as necessary.- Ensure exit signs are clearly visible.	
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CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY	- GROUNDS	ACTIVITY	- LITTER PICK-UP
COMPONENT	- Light Items; Collection & Disposal of Outdoor Litter		
FREQUENCY OF SERVICE	- See below		
EQUIPMENT	- Pick-up truck, fan rakes, trash bags		
CREW	- 2 persons		
PRODUCTIVITY	-		
<p><u>THE SPECIFIC OBJECTIVES OF THIS TASK ARE:</u></p> <ul style="list-style-type: none">- to improve the visual appearance of the community;- to reduce vandalism and fire hazards;- to improve pedestrian safety and community pride; and- to minimize litter. <p><u>WEEKLY (OR AS REQUIRED) (2.0 h/ha total time)</u></p> <ul style="list-style-type: none">- Service public area waste receptacles.- Dispose of waste via delivery to specified dumpsite.- Report damaged or missing waste containers to supervisor.- Systematically walk the area to be cleaned of litter.- Pick up all cans, bottles, trash, stones, paper, tires or other objects that might interfere with grass mowing operations.- As applicable, separate trash (e.g. tin cans, glass) and place in trash bags. <p><u>ANNUALLY (Such as for spring clean-up) (5.0 h/ha total time)</u></p> <ul style="list-style-type: none">- Encourage private property owners to clean up their yards.- Prior to clean-up operation, systematically walk up and down all sites within the community and identify areas requiring litter pick-up.- Collect all miscellaneous trash, bottles, tires, boards and other litter items that might interfere with maintenance.- Take note of all miscellaneous trash, bottles, tires, boards and other litter items that might interfere with grass mowing.- Take note of all major debris such as abandoned furniture, stoves and car wrecks. Report these to supervisor for major debris removal task.- Stockpile collected litter and trash bags in truck and dispose of them at specified dumpsite. <p><u>NOTES:</u></p> <ol style="list-style-type: none">1. This task is not intended to replace routine municipal garbage collections.2. For litter pick-up relating to roadsides - see roads category.3. Community participation is highly recommended.4. Schedule litter pick-up just prior to grass mowing. <p><u>MATERIAL USAGE:</u> trash bags.</p>			
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CATEGORY - BUILDINGS	ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE
COMPONENT	- Space Heaters - Oil Fired
FREQUENCY OF SERVICE	- As shown below
EQUIPMENT	- flashlight/rags/oil can
CREW	- 1 person
PRODUCTIVITY	- See Below
<p><u>WEEKLY</u> (0.1 h/unit)</p> <ul style="list-style-type: none">- Visually inspect unit. Listen for unusual noise.- Check for leakage or unusual operation.- Check to see if the flue pipe is firmly attached. <p><u>MONTHLY</u> (0.12 h/unit)</p> <ul style="list-style-type: none">- Shut off fans.- Place hand on motor to check for extremely high temperature and excessive vibration. <p><u>QUARTERLY</u> (0.08 h/unit)</p> <ul style="list-style-type: none">- Lubricate fan motor with SAE #20 oil.- Wipe off excess oil. <p><u>ANNUALLY</u> (1 h/unit)</p> <ul style="list-style-type: none">- Check burners for soot.- If dirty, get servicer to clean the burners and the oil filters and readjust.- Clean chimney and flue box.	
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CATEGORY	- GROUNDS	ACTIVITY	- MAJOR DEBRIS REMOVAL
COMPONENT	- Heavy/Bulky Abandoned Items		
FREQUENCY OF SERVICE	- See below		
EQUIPMENT	- Pick-up truck & possible rental of tow truck, flat bed trailer		
CREW	- 2 persons plus community volunteers		
PRODUCTIVITY	- 32 h		
<u>THE SPECIFIC OBJECTIVES OF THIS TASK ARE:</u>			
<ul style="list-style-type: none">- to improve the visual appearance of the community;- to eliminate hazards, waste items and wrecks;- to clean community areas, creek corridors, empty lots for other uses; and- to reduce vandalism.			
<u>NOTE:</u>			
For best results, it is highly recommended that this task be made a special community event. Voluntary participation should be strongly encouraged. Seek an appropriate date or event to which this activity could best relate (e.g. first day of spring; just prior to a religious/cultural event, etc.).			
<u>SEMI-ANNUALLY or ANNUALLY</u> (as required)			
<ul style="list-style-type: none">- Seek community participation, assistance and cooperation.- Locate and identify for removal all major abandoned or discarded bulky trash/debris items.- If owner of items of questionable value can be identified, acquire permission and notify of intent to remove objects prior to actual removal.- Arrange for proper removal equipment as required (e.g. tow truck for automobile wrecks).- Check with local firms (such as scrap metal dealers) for potential resale value of debris to be removed.- If appropriate, stock pile potentially re-useable materials at specified band storage areas (e.g. left over lumber, bricks, barrels). Also consider utilization of items with play value for children's play area.- Dispose of all remaining debris at specified dump site.			
<u>NOTE:</u> So as to avoid misunderstandings, it is advisable to post a notice and personally notify owners of "abandoned" items such as dilapidated cars, etc. of intention to remove same and to obtain their permission prior to commencement of disposal actions.			
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CATEGORY	- GROUNDS	ACTIVITY	- WALKS AND HARD SURFACE AREAS UPKEEP
COMPONENT	- Gravel Parking Lot (Regrading and Topdressing)		
FREQUENCY OF SERVICE	- As below		
EQUIPMENT	- Grader, dump truck, rake, shovel, wheelbarrow, stakes & line levels		
CREW	- 2 persons		
PRODUCTIVITY	- See below		
<p><u>THE SPECIFIC OBJECTIVES OF THIS TASK ARE:</u></p> <ul style="list-style-type: none">- to improve surface drainage;- to establish smooth grades & minimize pot-holes; and- to maintain safe access to all components of system. <p><u>MONTHLY (OR AS REQUIRED) (0.5 h/mo/100 m²)</u></p> <ul style="list-style-type: none">- Ensure that litter and debris have been removed.- Fill in minor depressions. <p><u>TWICE A YEAR (SPRING AND FALL) (1.6 h/100 m²)</u></p> <ul style="list-style-type: none">- Arrange for temporary/alternate parking and truckfill.- Establish existing or improved drainage/slope criteria by setting level stakes or string lines as required.- Protect existing culverts as required.- Regrade, remove ridges, soft spots and boulders as required (as indicated by stakes or string lines).- Fill holes and low areas with excess granular fill.- Apply topdressing and spread uniformly to 75 mm.- Roll/compact as required.- Cross-check final levels and drainage.- Smoothly "feather off" edges and ensure drainage.- Apply dust proofing solution as required (calcium chloride or water/oil mix.) <p><u>MATERIAL USAGE:</u> Gravel topdressing and dust retardant solution.</p>			
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CATEGORY	- ROADS	ACTIVITY	- SNOW PLOWING
COMPONENT	- N/A		
FREQUENCY OF SERVICE	- Approximately 15 times per season		
EQUIPMENT	- See below		
CREW	- 1 Heavy equipment operator and winger if required		
PRODUCTIVITY	- For grader, 50 km/day (6 hrs.); 200 km/day for dump truck		
<u>EQUIPMENT</u> Grader or grader c/w wing plow and/or dump truck c/w snow plow or dump truck c/w snow plow and wing plow.			
<u>DESCRIPTION</u> Plowing snow from the surface of roads using mechanical means to provide reasonable winter driving conditions and in a manner that provides as safe driving conditions as possible under the circumstances.			
<u>SCHEDULING</u> Generally schedule after a storm unless a blockage exists or accumulation exceeds those limits identified in Quality Standards.			
<u>METHOD</u> <ol style="list-style-type: none">1. Commence plowing from centre of the road and out.2. Continue plowing on outside traffic lane and shoulders.3. Blue flashing or rotating beacons are a necessity.4. Plowing should be done with the flow of traffic.5. Approximately 1 to 2 cm of snow cushion to be left on gravel roads.6. periodically stop to allow any accumulated traffic behind to pass, providing road ahead is in condition to travel on.			
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CATEGORY - UTILITIES		ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE - WATER SUPPLY	
COMPONENT	- Domestic Piping and Valves		
FREQUENCY OF SERVICE	- See below		
EQUIPMENT	- Service Vehicle		
CREW	- 2 persons		
PRODUCTIVITY	- See Below		
<p><u>ANNUALLY</u> (0.25 h/valve)</p> <ul style="list-style-type: none">- Check all main valves.- Check if valve stem is vertical. Movement of valves could indicate possible failure due to fracture or misalignment.- Close and open valves.- Check or sound for leaks. <p><u>SEASONALLY</u></p> <ul style="list-style-type: none">- Check heat tracing operation prior to winter season. <p><u>AS REQUIRED</u> (1 h/valve)</p> <ul style="list-style-type: none">- Dismantle valve.- Examine seat and stem; clean; replace or reseal as required.- Repack valve and reassemble.- Operate valve; check for leaks; adjust as required.			
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CATEGORY - UTILITIES		ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE	
COMPONENT	- Transfer Tanks and Chemical Storage Tanks		
FREQUENCY OF SERVICE	- Weekly		
EQUIPMENT	- Tool kit/spare parts		
CREW	- 1 person		
PRODUCTIVITY	- 2 h/unit (weekly) 2.3 h/unit (annually)		
<u>WEEKLY</u>			
- Check tank for leaks; repair as required.			
- Check pressure relief valve and air relief valve.			
- Check pipes and joints; repair as required.			
- Check solenoid pressure switches; repair as required.			
- Check pressure gauges; record readings.			
- Check and repack valves as required.			
<u>ANNUALLY</u>			
- Examine interior of tank, following territorial regulations.			
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CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY	- UTILITIES	ACTIVITY	- EQUIPMENT PREVENTATIVE MAINTENANCE - WATER SUPPLY
COMPONENT	- Centrifugal Pumps		
FREQUENCY OF SERVICE	- See below		
EQUIPMENT	- Tool kit/spare parts/lubricants/rags		
CREW	- 1 person		
PRODUCTIVITY	- See below		
<u>DAILY</u> (0.25 h/unit)			
<ul style="list-style-type: none">- Check pump for excessive heat, noise and vibration.- Check mounting bolts and nuts; tighten as required.- Check glands for leakage; take up as required.- Check alignment.- Check lubricant level; replenish as required.- Prove Operation of standby pump.			
<u>QUARTERLY</u> (0.25 h/unit)			
<ul style="list-style-type: none">- Change oil.			
<u>ANNUALLY</u> (4 h/unit)			
<ul style="list-style-type: none">- Overhaul pump.- Disconnect unit.- Remove pump housing.- Clean and inspect shaft and bearings.- Replace badly worn and/or damaged parts.- Clean oil ducts and weep holes.- Inspect and clean impeller.- Install new seals and gaskets.- Replenish oil and lubricants.- Replace pump housing.- Reconnect unit.- Check alignment.- Test run pump; adjust as required.			
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CATEGORY	- UTILITIES	ACTIVITY	- EQUIPMENT PREVENTATIVE MAINTENANCE - WATER SUPPLY
COMPONENT	- Water Meter		
FREQUENCY OF SERVICE	- As shown below		
EQUIPMENT	- Tool kit		
CREW	- 1 person		
PRODUCTIVITY	- See below		
<p><u>WEEKLY</u> (0.08 h/unit)</p> <ul style="list-style-type: none">- Read meter; record readings. <p><u>MONTHLY</u> (0.08 h/unit)</p> <ul style="list-style-type: none">- Read meter, record readings.- Check meter for damage and general condition. <p><u>AS REQUIRED</u> (1 h/unit)</p> <ul style="list-style-type: none">- Disconnect paddle wheel and inspect.- Return to manufacturer for recalibration.- Replace meter on return.			
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CAPE DORSET TRUCKFILL STATION
MAINTENANCE

CATEGORY - UTILITIES	ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE - WATER SUPPLY
COMPONENT	- Steel Water Tanks
FREQUENCY OF SERVICE	- See below
EQUIPMENT	- Flashlight
CREW	- 1 person
PRODUCTIVITY	- See below
<p><u>ANNUALLY</u> (2 h/unit)</p> <ul style="list-style-type: none">- Check general condition of tanks.- Inspect tank foundations.- Examine ladders.- Check exposed piping and valves.- Check condition of roof.- Check tank roof hatch and lights.- Check air vents.- Check heat trace operation <p><u>AS REQUIRED</u> (annually 2 days/unit)</p> <ul style="list-style-type: none">- If inspection shows a need, arrange for withdrawing the tank from service to permit repainting. Paint tank interior as frequently as the exterior. Follow safety precautions when painting interiors of closed tanks.	
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CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY - UTILITIES	ACTIVITY - EQUIPMENT PREVENTATIVE MAINTENANCE - WATER SUPPLY
COMPONENT	- Hypochlorinator
FREQUENCY OF SERVICE	- As shown below
EQUIPMENT	- tool kit, spare parts, oil, rags, test kit
CREW	- 1 person
PRODUCTIVITY	- See Below
<p><u>DAILY</u> (0.18 h/unit)</p> <ul style="list-style-type: none">- Check chlorine residual and record result.- Check for leaks.- Check pump operation. <p><u>WEEKLY</u> (0.25 h/unit)</p> <ul style="list-style-type: none">- Make up hypochlorite solution.- Check foot valve for foreign objects.- Secure any loose fittings. <p><u>MONTHLY</u> (0.08 h/unit)</p> <ul style="list-style-type: none">- Dismantle and remove scale from all check valves.- Check oil level in unit. Top up if required. <p><u>SEMI-ANNUALLY</u> (1 h/unit)</p> <ul style="list-style-type: none">- Check and clear all parts, including the diaphragm. Replace any worn parts. <p><u>AS REQUIRED</u></p> <ul style="list-style-type: none">- Purge metering system with muriatic acid to remove calcium deposits. Flush acid from the system before system is put back into use.	
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MAINTENANCE

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CATEGORY	- UTILITIES	ACTIVITY	- POWER GENERATION - PREVENTATIVE MAINTENANCE
COMPONENT	- Diesel Generator - Standby Unit - Electrical		
FREQUENCY OF SERVICE	- As shown below		
EQUIPMENT	- Mechanic's standard kit		
CREW	- 1 power plant operator		
PRODUCTIVITY	- See Below		
<u>WEEKLY</u> (2 h)			
<ul style="list-style-type: none">- Visual inspection of unit (leaks).- Verify oil levels (add more if necessary).- Verify fuel level.- See if there is any accumulation of particles or water in the bowl and if so, complete inspection of the fuel system (tanks, lines), correct problem and replace fuel filters.- Verify intake and air filter.- Verify cables and connection of accumulators, verify electrolyte level of batteries, top up with distilled water if necessary.- Verify coolant level.- Verify tension of belts.- Run generator until it reaches operating temperature plus 30 minutes (only if unit is loaded to more than 40% of its rated capacity - if the unit is loaded to less than 40% of its rated capacity, 5 minutes will be sufficient).- Check for any vibrations or strange noises.- Check exhaust system for leaks.- Check fuel tanks and connection system for leaks.- Drain fuel water separator.			
<u>MONTHLY</u> (0.5 h)			
<ul style="list-style-type: none">- Measure voltage of each cell - report bad cells.- Examine battery poles and connections.- Verify operation of block lube oil heaters.- Verify oil level of:<ul style="list-style-type: none">- governor, and- fuel pump- Tighten starter connections, isolators, air filters, loose nuts and bolts.- Report items requiring major repairs.- Check operation of the unit as required by the supplier and certify the proper protection of each control and operating point.			
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MAINTENANCE

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CATEGORY - UTILITIES	ACTIVITY - POWER GENERATION - PREVENTATIVE MAINTENANCE
COMPONENT	- Diesel Generator - Standby Unit - Electrical
FREQUENCY OF SERVICE	- As shown below
EQUIPMENT	- Mechanic's standard kit
CREW	- 1 power plant operator
PRODUCTIVITY	- See Below
<p><u>QUARTERLY</u> (0.5 h)</p> <ul style="list-style-type: none">- Do monthly maintenance- Drain condensation points of fuel injection system.- Clean oil filter and lube oil.- Remove excess oil, clean unit. <p><u>SEMI-ANNUALLY</u> (4 h)</p> <ul style="list-style-type: none">- Tighten all bolts using a torque wrench.- Lubricate idler.- Check air Filter.- Clean radiator. <p><u>ANNUALLY</u> (1.5 h)</p> <ul style="list-style-type: none">- Check oil filters (clean or replace).- Request specialized personnel for annual inspection. <p><u>EVERY TWO YEARS</u> (1.5 h)</p> <ul style="list-style-type: none">- Change coolant.- Clean cooling system. <p>Refer to Manufacturer's literature for more detail.</p>	
DATE APPROVED	DATE REVISED



CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY - UTILITIES	ACTIVITY - ELECTRICAL SUPPLY
COMPONENT	- Diesel Generator - control panel assembly
FREQUENCY OF SERVICE	- As shown below
EQUIPMENT	- Electrician's standard kit and vacuum cleaner
CREW	- 1 - qualified electrician
PRODUCTIVITY	- 4 h
<p><u>ANNUALLY</u></p> <ul style="list-style-type: none">- Turn power to "OFF" position - operate engine "ON" or "OFF" as required.- Examine control wiring and tighten connections.- Vacuum or soft flow switchgear interior free of dust, dirt, foreign objects.- Examine, repair, replace and burnish contacts.- Verify relays armature free movement.- Verify "timing" component function in accordance with supplier's manual.- Verify "timing" component function in accordance with supplier's manual.- Verify over/under voltage relay operation on both time and instantaneous pick up in accordance with supplier's manual.- Verify overcurrent devices <u>settings</u> are in accordance with supplier's instructions.- Verify overcurrent devices <u>operate</u> in accordance with specifications.- Verify diesel generator voltmeter and ammeter accuracy.- Adjust diesel generator voltage to match a supply of 120 volt at load.- Adjust diesel generator frequency at 60 hertz.- Measure, date, record diesel generator power supply conductor insulation values - phase to phase and phase to ground.- Wipe/clean switchgear exteriors.- Turn power to "ON" position to verify operation.	
DATE APPROVED	DATE REVISED



CAPE DORSET TRUCKFILL STATION

MAINTENANCE

CATEGORY - UTILITIES	ACTIVITY - ELECTRICAL DISTRIBUTION
COMPONENT	- Motors/Control/first upstream protection
FREQUENCY OF SERVICE	- As shown below
EQUIPMENT	- Electrician's standard kit/vacuum cleaner/volt-ohm meter
CREW	- 1 - qualified electrician
PRODUCTIVITY	- 0.13 h/relay
<p>All sizes (excluding removable contact assemblies) including buss compartment.</p> <p><u>ANNUALLY</u> De-energize circuits</p> <ol style="list-style-type: none">1. Vacuum/soft blow/otherwise remove dust, dirt and foreign objects from enclosure.2. Closely examine interior for signs of overheat, moisture entry and if evidence correct cause.3. Verify alignment and level correct to prevent mechanical twisting stresses.4. Tighten loose insulators, buss braces and buss connections.5. Tighten loose equipment ground connections.6. Energize circuits to verify operation.	
DATE APPROVED	DATE REVISED



**OLIVER, MANGIONE, McCALLA &
ASSOCIATES LIMITED**

CONSULTING ENGINEERS, HYDROGEOLOGISTS & PLANNERS
P.O. Box 6, Iqaluit, N.W.T. X0A 0H0

**CAPE DORSET TRUCKFILL STATION
MAINTENANCE**

CATEGORY - UTILITIES	ACTIVITY - ELECTRICAL DISTRIBUTION
COMPONENT	- Motors/Control/first upstream protection (3 phase motors)
FREQUENCY OF SERVICE	- As shown below
EQUIPMENT	- Electrician's standard kit/vacuum cleaner
CREW	- 1 - qualified electrician
PRODUCTIVITY	- 0.33 h/motor - 0.17 h/control
<p>Three phase motors - less than 20 H.P. - 750 volt or less - Squirrel cage/would rotor induction/ synchronous: multiple, multiple speed - dual voltage motors.</p> <p><u>ANNUALLY</u></p> <p><u>MOTOR</u> De-energize circuits</p> <ol style="list-style-type: none">1. Vacuum/soft blow/remove dust, dirt and foreign objects, and verify ventilating passages and air gap unobstructed.2. Un Couple motor drive belts and couplings, and test horizontal and vertical end play movement to determine excessive bearing wear; replace damaged bearings.3. Examine for hot spots, solder throwing and commutator damage; and repair damaged parts.4. Measure, date, record insulation resistance of windings - winding to winding and winding to ground.5. Verify motor securely fastened.6. Examine motor accessories replacing damaged parts.7. Tighten loose accessories, connections and assemblies.8. Repair damaged flex/lead entries and cable protection.9. Tighten loose equipment ground connections.10. Correct improper belt tension/drive.11. Touch up paint job.12. Energize circuits to verify operation. <p><u>ANNUALLY</u></p> <p><u>CONTROL</u> De-energize circuits</p> <ol style="list-style-type: none">1. Vacuum/soft blow/remove foreign objects from control enclosure.2. Clean/burnish/polish switch and motor starter contacts.3. Tighten loose connections.4. Replace/repair damaged wiring, flex or cable entries and cable protection.5. Verify correct control function.6. Verify correct protection size.7. Verify contactor mechanisms operate smoothly and unobstructed.8. Replace covers.9. Energize circuits to verify operation.	
DATE APPROVED	DATE REVISED

CHAPTER 8

CAPE DORSET TRUCKFILL STATION

TESTING AND CERTIFICATION DATA

#101, 15334 - 123 Ave
Edmonton, Alberta T5V 1K8
Phone: (403) 452-0174
Fax: (403) 452-0175

WHIPONIC WELLPUTER LTD.
General Contracting - Electrical and Mechanical

P.O. Box 278
Norman Wells, N.W.T.
X0E 0V0
Fax: (403) 567-2821

November 06, 1992

Government of N.W.T.
Dept of Public Works
Baffin Region
Iqaluit, N.W.T.
X0A 0H0

Attention: Dave McPherson

Re: Cape Dorset Truckfill
Cape Dorset, N.W.T.

G U A R A N T E E

WHIPONIC WELLPUTER LTD. guarantees that all work executed in this contract will be free from defective workmanship and materials for a period of one (1) year from the date of substantial completion on JUNE 23, 1993

WHIPONIC WELLPUTER LTD. will, at its own expenses, repair and replace any defective work damaged thereby, which fails or becomes defective during the term of the guarantee, providing such work is not due to improper usage, or regular maintenance.

Your truly,
WHIPONIC WELLPUTER LTD.

Kevin Diebold
President

KD/js

TEST REPORTS

DATE Oct 29/92

JOB CAPE DORSET TRUCK FILL STATION

LOCATION CAPE DORSET NWT

SYSTEM BOILER

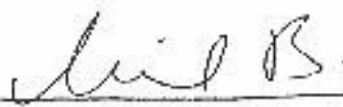
TYPE OF TEST HYDROSTATIC - 34 PSIG.

TIME PERIOD
OF TEST 2 HRS

MECHANICAL REP  per - WHIPONIC WELLPUTER.

CONTRACTOR'S REP N/A

CONSULTANT'S REP - per -

for DPW 
Mike PERRY SM
29 Oct 92

TEST REPORTS

DATE NOV 18/92

JOB TRUCKFILL STATION

LOCATION CAPE DORSET NWT

— DOMESTIC COLD WATER,
SYSTEMS PUMPS 1-4, HEI-2 DOMESTIC WATER HEATING SYSTEM
— HEATING PIPING — ENTIRE —
— MAIN PIPING OVER PUMPS P1-2

TYPE OF TEST WATER-AIR-860 KPA

NOTE - HEATING PIPING TO BE RETESTED WITH GLYCOL.

TIME PERIOD
OF TEST 3 HRS.

MECHANICAL REP [Signature] per - WHIPONIC WELLPUTER

CONTRACTOR'S REP N/A

CONSULTANT'S REP [Signature] / CLIVER MANGIONE
MIKE ASSELINI / McCALLA & ASSOCIATES

TEST REPORTS

DATE NOV 21 / 92

JOB TRUCK FILL STATION

LOCATION CAPE DORSET NWT

SYSTEM WATER INLET HEADER AND TANK

TYPE OF TEST AIR - 50 PSI -

TIME PERIOD
OF TEST 2 HRS

MECHANICAL REP *[Signature]* - per WHIPONK WELLPUTER

CONTRACTOR'S REP _____

CONSULTANT'S REP *[Signature]* / D.P.W.