

Powerline Technician On-the-Job Checklist



	Level 1	Page 1/2
Red Seal Tasks	On-The-Job Duties	Completed
Performs safety-related functions	Inspect & sharpen leg gaffs prior to use	<input type="checkbox"/>
	Gather tools required to isolate & ground a line	<input type="checkbox"/>
	Controls area to prevent unauthorized personnel access	<input type="checkbox"/>
	Review the single line drawing & construction standards to confirm isolation points	<input type="checkbox"/>
	Install temporary grounding under supervision as per company policy	<input type="checkbox"/>
Uses & maintains tools & equipment	Operate, maintain & store MD-6 & the various compression dies	<input type="checkbox"/>
	Use a megger to test the insulation of a cable prior to installation	<input type="checkbox"/>
	Frame structure & rig components for installation	<input type="checkbox"/>
Organizes work	Use standards to determine the installation details for a component	<input type="checkbox"/>
	Complete site housekeeping, such as disposal of wire scraps & other construction debris	<input type="checkbox"/>
	Complete a job hazard analysis to plan a task & mitigate identified hazards	<input type="checkbox"/>
Accesses work area	Climb a pole to complete a repair using climbing gear	<input type="checkbox"/>
	Access work area using a bucket truck	<input type="checkbox"/>
	Inspect off-road equipment prior to use	<input type="checkbox"/>
Uses live-line methods	Select the type of cover-up required for the task	<input type="checkbox"/>
	Verify rubber glove class matches the system being worked on	<input type="checkbox"/>
	Identify type & class of hot stick required for the task	<input type="checkbox"/>
Uses communication & mentoring techniques	Communicate using radios during the erection of a transmission line	<input type="checkbox"/>
Installs voltage control equipment	Assist journey person with the installation of a 600V/240V/120V pole mounted transformer	<input type="checkbox"/>
	Assist journey person with installation of a single-phase pole top switch	<input type="checkbox"/>

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	Level 1	Page 2/2
Red Seal Tasks	On-The-Job Duties	Completed
Installs pole structures	Determine pole type by referring to the installation standards	<input type="checkbox"/>
	Excavate a hole to set a pole as per the installation standards	<input type="checkbox"/>
	Install various types of anchors, such as rock, helix, expansion, log & cross plate	<input type="checkbox"/>
Installs steel lattice structures	Lay out steel lattice structure components in the order of erection	<input type="checkbox"/>
	Fasten steel lattice structure components using an impact gun	<input type="checkbox"/>
	Assist journeyperson with the installation of a temporary guy wire	<input type="checkbox"/>
Installs overhead conductors & cables	Run overhead lines to a residential service mast	<input type="checkbox"/>
	Verify conductor sag over a roadway matches installation standards	<input type="checkbox"/>
	Tie in overhead conductors to the weatherhead on a residential service	<input type="checkbox"/>
	Use an impact to install a wedge connector	<input type="checkbox"/>
Installs communication devices	Detach communication lines from existing service lines when upgrading service	<input type="checkbox"/>

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	Level 2	Page 1/2
Red Seal Tasks	On-The-Job Duties	Completed
Uses live-line methods	Inspect cover-up for signs of damage prior to use	<input type="checkbox"/>
	Inspect rubber gloves & covers to ensure that they have no holes or damage	<input type="checkbox"/>
	Verify hot stick condition prior to use	<input type="checkbox"/>
Installs overhead conductors & cables	Secure overhead conductors to a commercial mast	<input type="checkbox"/>
	Assist journeyperson with the adjustment of conductor tension to meet installation standards	<input type="checkbox"/>
	Attach secondary/neutral to a pole using a dead end	<input type="checkbox"/>
	Install cable splice on distribution line to repair a damaged conductor	<input type="checkbox"/>
Installs underground & underwater cable	Install a residential pedestal	<input type="checkbox"/>
	Install direct burial tape as per the CEC during the installation of underground feeders	<input type="checkbox"/>
	Splice a service conductor damaged by excavation	<input type="checkbox"/>
	Terminate secondary cables inside an electrical vault	<input type="checkbox"/>
Installs lighting systems	Install & terminate streetlights as per installation standards	<input type="checkbox"/>
	Clean out wildlife & other debris from wireway or cable enclosure	<input type="checkbox"/>
Installs voltage control equipment	Assist in the installation & termination of a dead-front transformer	<input type="checkbox"/>
	Install & test GOPT switch as per installation standards	<input type="checkbox"/>
Installs protection equipment	Replace a damaged/inoperable fuse in a service panel	<input type="checkbox"/>
	Install lightning arrestors on a 200 amp or less panel	<input type="checkbox"/>
Installs metering equipment	Install a single-phase meter socket for a residential service	<input type="checkbox"/>
Operates distribution & transmission systems	Identify system components to prevent switching errors	<input type="checkbox"/>
Repairs distribution systems	Repair a corroded connection on a residential service	<input type="checkbox"/>
	Locate & expose a damaged section of underground cable for repair	<input type="checkbox"/>

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	Level 2	Page 2/2
Red Seal Tasks	On-The-Job Duties	Completed
Maintains distribution & transmission systems	Inspect poles for damage & decay	<input type="checkbox"/>
	Perform a single-phase transformer load check	<input type="checkbox"/>
	Cut back branches in danger of contacting lines	<input type="checkbox"/>
Repairs transmission systems	Replace wooden pole crossarms	<input type="checkbox"/>
	Megger underground cable to verify cable insulation quality	<input type="checkbox"/>

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Powerline Technician On-the-Job Checklist



	Level 3	Page 1/2
Red Seal Tasks	On-The-Job Duties	Completed
Uses live-line methods	Install a cover-up on live lines to prevent accidental contact	<input type="checkbox"/>
	Clean & store rubber gloves & covers according to manufacturer's recommendations	<input type="checkbox"/>
	Select a hot stick based upon job requirements	<input type="checkbox"/>
Installs overhead conductors & cables	Attach cable pulling equipment to the conductor	<input type="checkbox"/>
	Use a sag stick or other methods to adjust line sag as per installation standards	<input type="checkbox"/>
	Secure conductors to insulators using methods specified in the installation standards	<input type="checkbox"/>
	Select compression fitting to splice overhead cables	<input type="checkbox"/>
Installs underground & underwater cable	Install PVC conduit & ground conductor for an underground vault	<input type="checkbox"/>
	Verify worker accessible trench is sloped back a minimum of 1 meter per 4 meters of depth	<input type="checkbox"/>
	Use a line locator to locate an underground cable	<input type="checkbox"/>
	Install an elbow surge protector	<input type="checkbox"/>
Installs lighting systems	Hoist streetlight into place, level & install mounting bolts	<input type="checkbox"/>
	Replace streetlight bulbs & components	<input type="checkbox"/>
Installs voltage control equipment	Assist journeyperson with installation of a 3-phase 600v pole type transformer	<input type="checkbox"/>
	Assist journeyperson with installation of single-phase step voltage regulators	<input type="checkbox"/>
	Troubleshoot & repair/replace a non-operational or damaged knife switch	<input type="checkbox"/>
Installs protection equipment	Install a cutout according to installation standards	<input type="checkbox"/>
	Manually activate a sectionalizer for isolation purposes	<input type="checkbox"/>
	Install & test specialized fuses	<input type="checkbox"/>
Installs metering equipment	Install a current transformer to measure line current	<input type="checkbox"/>

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Powerline Technician On-the-Job Checklist



	Level 3	Page 2/2
Red Seal Tasks	On-The-Job Duties	Completed
Operates distribution & transmission systems	Perform system switching as instructed by distribution authority	<input type="checkbox"/>
Maintains distribution & transmission systems	Inspect transmission lines to locate areas of corona discharge	<input type="checkbox"/>
	Install pole truss to replace a decaying pole	<input type="checkbox"/>
	Replace damaged cables ties to reduce corona discharge	<input type="checkbox"/>
Repairs distribution systems	Re-tension an overhead service cable that is contacting the building	<input type="checkbox"/>
	Identify the cause of cable jacket water penetration	<input type="checkbox"/>
	Remove objects, such as branches or debris, hanging from overhead conductors	<input type="checkbox"/>
	Assist journeyperson with documentation of completed repairs	<input type="checkbox"/>
Repairs transmission systems	Inspect a substation noting any concerns regarding the condition of the crushed rock, fence or ground grid	<input type="checkbox"/>
	Use a cable spike to confirm the absence of voltage	<input type="checkbox"/>
	Install an overhead conductor using the tension stringing method	<input type="checkbox"/>
	Use a Hi-pot tester to verify the quality of a cable repair	<input type="checkbox"/>

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Powerline Technician On-the-Job Checklist



	Level 4	Page 1/2
Red Seal Tasks	On-The-Job Duties	Completed
Uses live-line methods	Remove a live-line cover-up as part of the procedure to re-energize a line	<input type="checkbox"/>
	Send rubber gloves for testing & verification as recommended by the manufacturer	<input type="checkbox"/>
	Perform a current leakage on an aerial device	<input type="checkbox"/>
	Clean a hot stick by using manufacturer approved cleaning products & methods	<input type="checkbox"/>
Uses communication & mentoring techniques	Demonstrate a rigging procedure for an apprentice	<input type="checkbox"/>
Installs overhead conductors & cables	Use powered equipment, such as a tugger or winch, to string overhead conductors	<input type="checkbox"/>
	Participate in a high load line move	<input type="checkbox"/>
	Connect overhead cables to a tap-off or parallel branch	<input type="checkbox"/>
	Connect a tap-off to a feeder using a bail clamp	<input type="checkbox"/>
Installs protection equipment	Verify the operation of a newly installed recloser	<input type="checkbox"/>
	Simulate fault conditions to verify the operation of a sectionalizer	<input type="checkbox"/>
	Install specific application fuses, such as eFuses or grid protector modules	<input type="checkbox"/>
Installs communication devices	Install a cellular or line of site antenna on a residential pole	<input type="checkbox"/>
Operates distribution & transmission systems	Perform switching bypass to reroute electricity around a damaged section of line	<input type="checkbox"/>
	Confirm de-energization of a line with operations	<input type="checkbox"/>
	Complete & submit a switching plan to the distribution authority	<input type="checkbox"/>
Maintains distribution & transmission systems	Identify the locations for temporary grounds to isolate a line section	<input type="checkbox"/>
	Replace a hot pole as per installation standards & procedures	<input type="checkbox"/>
	Replace corroded or damaged fasteners	<input type="checkbox"/>
	Replace damaged guy wire	<input type="checkbox"/>

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	Level 4	Page 2/2
Red Seal Tasks	On-The-Job Duties	Completed
Installs voltage control equipment	De-energize a capacitor by shorting out the terminals	<input type="checkbox"/>
	Install & terminate an on-load tap changer	<input type="checkbox"/>
	Understand the limitations & the installation requirements for a reactor	<input type="checkbox"/>
Repairs distribution systems	Identify why a recloser is not automatically restoring the circuit	<input type="checkbox"/>
	Identify the location of a cable fault using test equipment, such as a thumper or a TDR device	<input type="checkbox"/>
	Replace a corroded or damaged anchor to maintain line tension	<input type="checkbox"/>
	Replace damaged or failed cable terminations	<input type="checkbox"/>
Repairs transmission systems	Call the outage center to clear the call from the location of the trouble	<input type="checkbox"/>
	Determine why & the procedure for repair for feeder connections that are pulling away from the connection point	<input type="checkbox"/>
	Replace the internals on a solid blade disconnect switch	<input type="checkbox"/>
	Replace a failed or damaged stress cone	<input type="checkbox"/>

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Information Regarding the Checklist

Saskatchewan Apprenticeship and Trade Certification Commission's (SATCCs) On-The-Job Checklist provides a complete list of trade-specific Red Seal tasks for apprentices to complete under the supervision of a journeyman. This work should be completed prior to attending the technical training level under which the duties are listed (e.g. Level 1 completed prior to attending Level 1 technical training).

Completing this checklist will ensure that apprentices are exposed to the full scope of a particular Red Seal trade throughout their apprenticeship program. It will also help prepare apprentices for each level of technical training by performing work on-the-job relating specifically to topics covered later on. The trade-specific tasks listed have been reviewed by certified journeymen in Saskatchewan for their accuracy and have been set to an appropriate skill level.

An apprentice spends approximately 85% of their apprenticeship term training on-the-job. It is the both the apprentice and the employer's or journeyman's responsibility to supervise an apprentice's practical skills development during their program.

To promote transparency and consistency, this document aligns with the 2019 Powerline Technician Red Seal Occupational Standard (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca

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All work performed in this checklist is to be done under the supervision and guidance of a certified journeyman

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