



**CONSTRUCTION SPECIFICATION FOR  
REMOVAL OF ELECTRICAL EQUIPMENT AND MATERIALS**

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**610.01 SCOPE**

This specification covers the requirements for demolition, salvage, and removal, either completely or partially, of electrical equipment and materials.

**610.01.01 Specification Significance and Use**

This specification is written as a provincial-oriented specification. Provincial-oriented specifications are developed to reflect the administration, testing, and payment policies, procedures, and practices of the Ontario Ministry of Transportation.

Use of this specification or any other specification shall be according to the Contract Documents.

## **610.01.02 Appendices Significance and Use**

Appendices are not for use in provincial contracts as they are developed for municipal use, and then, only when invoked by the Owner.

Appendices are developed for the Owner's use only.

Inclusion of an appendix as part of the Contract Documents is solely at the discretion of the Owner. Appendices are not a mandatory part of this specification and only become part of the Contract Documents as the Owner invokes them.

Invoking a particular appendix does not obligate an Owner to use all available appendices. Only invoked appendices form part of the Contract Documents.

The decision to use any appendix is determined by an Owner after considering their contract requirements and their administrative, payment, and testing procedures, policies, and practices. Depending on these considerations, an Owner may not wish to invoke some or any of the available appendices.

## **610.02 REFERENCES**

When the Contract Documents indicate that provincial-oriented specifications are to be used and there is a provincial-oriented specification of the same number as those listed below, references within this specification to an OPSS shall be deemed to mean OPSS.PROV, unless use of a municipal-oriented specification is specified in the Contract Documents. When there is not a corresponding provincial-oriented specification, the references below shall be considered to be to the OPSS listed, unless use of a municipal-oriented specification is specified in the Contract Documents.

This specification refers to the following standards, specifications, or publications:

### **Ontario Provincial Standard Specifications, Construction**

OPSS 492	Site Restoration Following Installation of Pipes, Utilities, and Associated Structures
OPSS 510	Removal

## **610.04 DESIGN AND SUBMISSION REQUIREMENTS**

### **610.04.01 Submission Requirements**

#### **610.04.01.01 Operations Plans**

An operations plan shall be submitted to the Contract Administrator a minimum of 3 weeks prior to the commencement of polychlorinated biphenyl (PCB) related activities. The plan shall describe the overall approach to the work and include the following:

- a) Operational methodologies.
- b) Work area delineation and security details.
- c) Environmental impact management, such as spill prevention and containment and emergency response plan.
- d) Contamination control.

- e) Equipment and area decontamination procedures.
- f) Ontario Ministry of the Environment and Climate Change (MOECC) Compliance Approval numbers as applicable for transportation and transfer facilities.

PCB wastes and PCB related wastes to be moved to a transfer facility shall be included in the operations plan with details regarding their eventual transport to a disposal facility for destruction.

## **610.07 CONSTRUCTION**

### **610.07.01 General**

General requirements for electrical work shall be as specified in the Contract Documents.

Demolition, salvage, and removal of electrical equipment and materials shall be as specified in the Contract Documents.

The Contractor shall acquire all releases and agreements necessary to do the work.

### **610.07.02 Timing of Work**

Existing electrical systems required to continue in-service shall remain functional during construction operations until new or modified systems are operational.

### **610.07.03 Removal**

Removal of non-electrical material and objects required for the removal of electrical equipment and material shall be according to OPSS 510.

Electrical concrete structures shall be removed to a minimum of 1.0 m below finished grade.

Where partial removal of pavement, sidewalk, curb and gutter, or other structures is required for removal of electrical equipment, the broken edges of the object to remain in place shall be squared up and trimmed along straight lines at a minimum distance of 300 mm from any area disturbed by removal operations.

Steel reinforcement, conduits, ducts, wires, and debris associated with the removed portions of such structures shall be removed for disposal.

### **610.07.04 Demolition**

Demolition of concrete, brick, timber, and masonry structures, including pole footings, equipment pads, concrete poles, and substation buildings shall be carried out in such a manner and with such equipment as not to disturb adjacent pavement, Utilities, other works, or electrical equipment and material to remain in place and with such care as to leave material designated to be salvaged in an undamaged condition.

### **610.07.05 Luminaires**

Prior to removing luminaires, all lamps and glass shall be removed.

### **610.07.06 Cables and Conduits**

Underground cables shall be completely removed and conduit systems shall be cut back to a depth of 600 mm below finished grade and abandoned in place.

**610.07.07                      Transformers**

Transformers containing PCBs, including all internal components, and all PCB related wastes shall be removed and managed as subject waste as specified in the Contract Documents.

Transformers not containing PCBs shall be removed, salvaged, and transported to storage sites specified in the Contract Documents.

**610.07.08                      Temporary Installations**

Equipment and materials supplied by the Contractor for use with temporary installations shall be removed. Equipment and materials supplied by the Owner for use with temporary installations shall be removed and salvaged as specified in the Contract Documents.

**610.07.09                      Salvage of Equipment**

**610.07.09.01                  Damages**

Prior to removal operations, the Contract Administrator shall be notified of any equipment that is broken or deteriorated to the point where salvage is not practical.

Equipment and materials damaged through improper handling or through loss after removal shall be repaired or replaced at no additional cost to the Owner.

**610.07.09.02                  Packaging of Electrical Equipment and Materials**

Electrical equipment and materials that has been removed shall be packed for protection against damage.

All equipment or material in excess of 100 kg shall be securely mounted on wooden pallets suitable for handling by forklift trucks.

**610.07.09.03                  Shipping of Salvaged Electrical Equipment and Materials**

All salvaged equipment and materials shall be loaded, transported, and unloaded at the sites specified in the Contract Documents.

Delivery to any Owner unloading sites shall be made between 09:00 and 15:30, local time. The Contract Administrator shall be notified 3 Business Days in advance of delivery to the Owner's unloading sites.

**610.07.10                      Quality Control**

**610.07.10.01                  Pre-Removal Testing and Inspection**

Components specified for removal shall be inspected prior to removal. If the components are to be salvaged for reuse within the Working Area or for storage at the Owner's premises, the Contractor shall make a list of any imperfections of those components and shall submit the list to the Contract Administrator 3 Business Days prior to the commencement of removal.

**610.07.10.02                  Proof of Performance Testing and Inspection**

The removal work shall be inspected to ensure that all electrical removals have been carried out and that all components requiring disposal at approved sites have been completed so that no such materials remain on the Owner's lands.

**610.07.11 Site Restoration**

Site restoration shall be according to OPSS 492.

**610.07.12 Management of Excess Material**

Management of excess material shall be according to the Contract Documents.

**610.10 BASIS OF PAYMENT**

**610.10.01 Removal of Electrical Equipment - Item**

Payment at the Contract price for the above tender item shall be full compensation for all labour, Equipment, and Material to do the work.

Work required to salvage and transport liquid type transformers shall be administered as a Change in the Work.

**Appendix 610-A, November 2016  
FOR USE WHILE DESIGNING MUNICIPAL CONTRACTS**

**Note:** This is a non-mandatory Commentary Appendix intended to provide information to a designer, during the design stage of a contract, on the use of the OPS specification in a municipal contract. This appendix does not form part of the standard specification. Actions and considerations discussed in this appendix are for information purposes only and do not supersede an Owner's design decisions and methodology.

**Designer Action/Considerations**

No information provided here

**Related Ontario Provincial Standard Drawings**

No information provided here.