

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**
11 Laurier St./ 11 rue, Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Title - Sujet MAINTENANCE,SERVICE & REPAIR CONTRA	
Solicitation No. - N° de l'invitation W3931-120271/A	Date 2012-06-28
Client Reference No. - N° de référence du client W3931-120271	
GETS Reference No. - N° de référence de SEAG PW-\$\$PV-915-60756	
File No. - N° de dossier pv915.W3931-120271	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2012-08-08	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Gosselin, Monique	Buyer Id - Id de l'acheteur pv915
Telephone No. - N° de téléphone (819) 956-3803 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: SEE ANNEX A	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address
**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Scientific, Medical and Photographic Division / Division de l'équipement scientifique, des produits photographiques et pharmaceutiques
11 Laurier St./ 11 rue, Laurier
6B1, Place du Portage
Gatineau, Québec K1A 0S5

Delivery Required - Livraison exigée See Herein	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

1. Security Requirement
2. Requirement
3. Debriefings

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Basis of Selection

PART 5 - CERTIFICATIONS

1. Certifications Required with the Bid

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Statement of Work
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Payment
7. Invoicing Instructions
8. Certifications
9. Applicable Laws
10. Priority of Documents
11. SACC Manual Clauses
12. Shipping Instructions - Delivery at Destination (for goods only)
13. Replacement Parts
14. Modification of Equipment List

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pv915W3931-120271

Buyer ID - Id de l'acheteur

pv915

CCC No./N° CCC - FMS No/ N° VME

List of Annexes:

Annex A	Requirement / Basis of Payment
Annex B	Statement of Work
Annex C	Mandatory Specifications
Annex C-1	Point Rated Specifications
Annex D	DND Electrical Standards

PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with the requirement.

2. Requirement

The requirement is detailed under Annex A - Requirement / Basis of Payment.

2.1 Optional Requirement (goods)

The Bidder grants to Canada the irrevocable option to acquire the goods described at Annex A - Requirement / Basis of Payment of the Contract under the same terms and conditions and at the prices stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

2.2 Option to extend the contract (service)

The Bidder grants to Canada the irrevocable option to extend the term of the Contract by up to four (4) additional one (1) year period under the same terms and conditions. The Bidder agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

3. Debriefings

After contract award, bidders may request a debriefing on the results of the bid solicitation. Bidders should make the request to the Contracting Authority within 15 working days of receipt of notification that their bid was unsuccessful. The debriefing may be provided in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/acho-eng.jsp>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2011-05-16) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: sixty (60) days
 Insert: ninety (90) days

1.1 SACC Manual Clauses

B1000T Condition of Material 2007-11-30

2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

4. Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the province of Ontario, Canada.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (two (2) copies)
Section II: Financial Bid (one (1) copy)
Section III: Certifications (one (1) copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement.

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders are encouraged to:

- 1) use paper containing fibre certified as originating from a sustainably-managed forest and/or containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

1.1 Section I: Technical Bid

In their technical bid, bidders must explain and demonstrate how they propose to meet the requirements and how they will carry out the Work

The following applies to the Requirement and bidders must provide the following information in the bid where applicable:

1.1.1 Disassembly and Re-installation

See Annex B - Statement of Work, under 3.1 - Requirement, para 3.1.2

1.1.2 Software Upgrades

See Annex B - Statement of Work, under 3.3 - Technical Requirement, para 3.3.2 and 3.3.3

1.1.3 Contacts

Bidders are requested to provide the following: Information pertaining to Article 5.3 Contractor Representatives under Part 6, Resulting Contract Clauses.

1.2 Section II: Financial Bid

The Bidder must fill-in the required information at Annex A - Requirement / Basis of Payment.

Option:

A firm unit price must be filled in for each of the option periods. If the bidder fails to quote a firm unit price for each of the option periods, the bidder will be considered non-compliant and no further consideration will be given.

1.2.1 SACC Manual Clauses

C3011T	Exchange Rate Fluctuation	2010-01-11
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1.3 Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

1.1 Technical Evaluation

All proposals submitted must be completed in full and provide all of the information requested in the Request for Proposal (RFP) package to enable a full and complete evaluation. If the requirement is not addressed in the bidder's proposal, the proposal will be considered incomplete or non-responsive and will be rejected. The onus is on the bidder to provide all the information necessary to ensure a complete and accurate assessment.

Factors for Evaluation

1. **PRICING BASIS (MANDATORY):** Prices must be firm, DDP Delivered Duty Paid.
2. **COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS REQUEST FOR PROPOSAL (MANDATORY)**
3. **FOR CANADIAN SUPPLIERS ONLY:** Please note that the requirements of the Federal Contractors Program for Employment Equity may apply - see herein. (MANDATORY if applicable)

1.1.1 Mandatory Technical Criteria

See Annex C

1.1.2 Point Rated Technical Criteria

See Annex C-1

1.2 Financial Evaluation

The lowest evaluated price will be established using the following criteria:

- a) prices will be evaluated in Canadian Funds including any applicable Taxes and Canadian Customs Duty (if applicable) and excluding the Goods and Services Tax (GST) or Harmonized Sales Tax (HST). For evaluation purposes, bids received in a foreign currency will be converted to Canadian funds using the appropriate rate of exchange using the rate quoted by the Bank of Canada as being in effect on date of bid closing.
- b) for goods only, prices will be evaluated on a DDP as per Annex A - Requirement / Basis of Payment
- c) for bid evaluation purposes only, the total bid price will be determined by adding the cost for the firm price with the cost for the optional years and optional items. The estimated quantity for items 2.1, 2.2, 3.1 and 3.2 will be one (1) for each option year.

2. Basis of Selection

1. Bidders must submit bid for each geographic area on a "stand alone" basis such that Canada may award a contract for one or more areas without further negotiation.

The bidder must quote on all locations in a given area in order to be given consideration for that area.

-
2. In order for an offer to be considered responsive, the bidder shall:
- a) comply with the applicable terms and conditions of this RFP;
 - b) demonstrate that it meets all of the requirements identified in the RFP package as "Mandatory". Bids not meeting all of the requirements identified as "Mandatory" will be considered non responsive and no further consideration will be given to the offer;
 - c) obtain the required minimum of 8 points overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 16 points

Bids not meeting the minimum requirements of (a), (b) and (c) above will be given no further consideration. The lowest priced technically responsive offer for each of the five (5) geographic areas will be recommended for the award of a contract.

There is a possibility that one (1) to five (5) contracts could result from this Request for Proposal.

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications to be awarded a contract. Canada will declare a bid non-responsive if the required certifications are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

1. Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

1.1 Federal Contractors Program for Employment Equity - Certification

1.1.1 Federal Contractors Program - \$200,000 or more

1. The Federal Contractors Program (FCP) requires that some suppliers, including a supplier who is a member of a joint venture, bidding for federal government contracts, valued at \$200,000 or more (including all applicable taxes), make a formal commitment to implement employment equity. This is a condition precedent to contract award. If the Bidder, or, if the Bidder is a joint venture and if any member of the joint venture, is subject to the FCP, evidence of its commitment must be provided before the award of the Contract.

Suppliers who have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive government contracts over the threshold for solicitation of bids as set out in the Government Contracts Regulations. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

2. If the Bidder does not fall within the exceptions enumerated in 3. (a) or (b) below, or does not have a valid certificate number confirming its adherence to the FCP, the Bidder must fax (819-953-8768) a copy of the signed form LAB 1168, Certificate of Commitment to Implement Employment Equity, to the Labour Branch of HRSDC.
3. The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

- (a) () is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, or temporary employees having worked 12 weeks or more in Canada;
- (b) () is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;
- (c) () is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC (having not bid on requirements of \$200,000 or more), in which case a duly signed certificate of commitment is attached;
- (d) () is subject to the FCP, and has a valid certificate number as follows: _____ (e.g. has not been declared an ineligible contractor by HRSDC.)

Further information on the FCP is available on the HRSDC Web site:
<http://www.hrsdc.gc.ca/eng/labour/equality/fcp/index.shtml>

Solicitation No. - N° de l'invitation

W3931-120271/A

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W3931-120271

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File No. - N° du dossier

pv915W3931-120271

Buyer ID - Id de l'acheteur

pv915

CCC No./N° CCC - FMS No/ N° VME

1.2 Parts Certification

The supplier certifies that any and all parts necessary to effect repair under this contract are available to him either directly from the manufacturer or through the manufacturer's authorized dealers.

(Signature of Supplier Representative)

(Date)

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement associated with the requirement.

2. Requirement

2.1 Requirement

The Contractor must provide the items detailed under Annex A - Requirement / Basis of Payment.

2.2 Optional Requirement

The Contractor grants to Canada the irrevocable option to acquire the goods described at Annex A - Requirement / Basis of Payment of the Contract under the same terms and conditions and at the prices and rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

2.3 Disassembly and Re-installation

See Annex B - Statement of Work, under 3.1 - Requirement, para 3.1.2

2.4 Software Upgrades

See Annex B - Statement of Work, under 3.3 - Technical Requirement, para 3.3.2 and 3.3.3.

3. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<http://sacc.pwgsc.gc.ca/sacc/index-e.jsp>) issued by Public Works and Government Services Canada.

3.1 General Conditions

2010C (2012-03-02) General Conditions - Services (Medium Complexity), apply to and form part of the Contract.

2010A (2012-03-02) General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

Section 09 entitled Warranty of general conditions 2010A is amended by deleting subsection 2 in its entirety and replacing it with the following:

2. The Contractor must pay the transportation cost associated with returning the Work or any part of the Work to the Contractor's plant for replacement, repair or making good. The Contractor must also pay the transportation cost associated with forwarding the replacement or returning the Work or part of the Work when rectified to the delivery point specified in the Contract or to another location as directed by Canada. If, in the opinion of Canada, it is not expedient to remove the Work from its location, the Contractor must carry out any necessary repair or making good of the Work at that location. In such cases, the Contractor will be responsible for all Costs (including travel and living expenses) incurred in so doing, Canada will not reimburse these Costs.

All other provisions of the warranty section remain in effect.

4. Term of Contract

4.1 Period of Contract

The period of the contract is from date of contract award for a period of one (1) year.

4.2 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to four (4) additional one (1) year periods under the same terms and conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least thirty (30) calendar days before the Contract expiry date. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Monique Gosselin
Public Works and Government Services Canada
Acquisitions Branch
Commercial Consumer Products Directorate
11 Laurier Street, 6A2, Phase III
Place du Portage, Hull, Quebec, K1A 0S5

Telephone: (819) 956-3803
 Facsimile: (819) 956-3814
 E-mail address: monique.gosselin@pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

5.2 Technical Authority **(to be filled in only at contract award)**

The Technical Authority for the Contract is:

Name: _____
 Telephone: _____
 Facsimile: _____
 E-mail address: _____

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

5.3 DND Procurement Authority **(to be filled in only at contract award)**

The DND Procurement Authority for the Contract is:

Name: _____
 Telephone: _____
 Facsimile: _____
 E-mail address: _____

The DND Procurement Authority is responsible for the DND contract management and for the authorization of all work against this contract.

5.4 Contractor's Representative **(fill-in)**

The telephone number of the person responsible for:

General enquiries
 Name: _____
 Telephone No. _____
 Facsimile No. _____
 E-mail address: _____

Delivery Follow-up
 Name: _____
 Telephone No. _____
 Facsimile No. _____
 E-mail address: _____

6. Payment

6.1 Limitation of Expenditure

1. Canada's total liability to the Contractor under the Contract must not exceed \$_____ **(to be filled in only at contract award)** per year. Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.
2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - A. when it is 75 percent committed, or
 - B. four (4) months before the contract expiry date, or
 - C. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,

whichever comes first.
3. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

6.2 Funding by Fiscal Year

Despite the Total Estimated Cost (Limitation of Expenditure) specified in the Contract, and unless otherwise authorized in writing by the Contracting Authority, the maximum amount which may be paid for work completed in the period ending one (1) year after contract award specified is as follows:

Date of Contract Award for one (1) year (2012-2013) : \$_____ **(to be filled in only at contract award)**

Period for 2013-2014 : \$_____ **(to be filled in only at contract award)**

Period for 2014-2015 : \$_____ **(to be filled in only at contract award)**

Period for 2015-2016 : \$_____ **(to be filled in only at contract award)**.

Period for 2016-2017 : \$_____ **(to be filled in only at contract award)**.

6.3 Basis of Payment - Hourly Rates

6.3.1 Labour (for item 2.1 only)

The Contractor will be paid for the actual hours worked at the firm hourly rates detailed in Annex A - Requirement / Basis of Payment. Goods and Services Tax or Harmonized Sales tax, as applicable is extra. The Contractor will be paid an initial half hour minimum charge calculated from the time the Contractor's technician arrives on-site. All additional chargeable time, over and above the first half hour, will be rounded to the nearest quarter hour.

6.3.2 Material and Replacement Parts

The material and replacement parts must be provided at the contractors lowest published price for like quality and quantity. All prices for parts and material are DDP destination. Customs duties are included and Goods and Services Tax or Harmonized Sales Tax (GST/HST) is extra, if applicable.

All payments are subject to government audit.

6.4 Travel and Living Expenses (for items 2.1 and 3.2 only)

The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the Treasury Board Travel Directive (<http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php>), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". All travel must have the prior authorization of the Contracting Authority.

All payments are subject to government audit.

6.5 SACC Manual Clauses

H1001C	Multiple Payment (for items 2.2, 3.1 and 3.2)	2008-05-12
H1008C	Monthly Payment (for item 1)	2008-05-12
C0711C	Time Verification	2008-05-12

7. Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- (a) a copy of time sheets to support the time claimed;
- (b) a service report of all work rendered in the previous month;
- (c) a copy of the release document and any other documents as specified in the Contract;
- (d) a copy of the invoices, receipts, vouchers for all direct expenses, and all travel and living expenses;

2. Invoices must be distributed as follows:

- (a) The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
- (b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.
- (c) one (1) copy must be forwarded to the consignee.

8. Certifications

Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification or it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the province of Ontario, Canada.

10. Priority of Documents

If there is a discrepancy between the wordings of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) 2010C (2012-03-02) General Conditions - Services (Medium Complexity);
- (c) 2010A (2012-03-02) General Conditions - Goods (Medium Complexity)
- (d) Annex A, Requirement / Basis of Payment;
- (e) Annex B, Statement of Work;
- (f) Annex C, Mandatory Specifications;
- (g) Annex D, DND Electrical Standards
- (h) the Contractor's bid dated _____ (insert date of bid).

11. SACC Manual clause

B1501C	Electrical Equipment	2006-06-16
G1005C	Insurance	2008-05-12

12. Shipping Instructions - Delivery at Destination (for goods only)

- Goods must be consigned to the destination specified in the Contract and delivered:

Delivered Duty Paid (DDP) as per Annex A - Requirement / Basis of Payment Incoterms 2000 for shipments from a commercial contractor.
- The Contractor will be responsible for all delivery charges, administration, costs and risk of transport and customs clearance, including the payment of customs duties and taxes.

13. Replacement Parts

It is the responsibility of the Contractor to supply all parts and components necessary to satisfy the services required by Canada. Replacement parts and subassemblies provided by the Contractor must be of new or like-new quality and equivalent in function to original equipment parts. Replaced parts shall become the property of the Contractor with the exception of any media or electronic component which contains Canada's confidential information. This information is to be erased in conjunction with, and with the permission of Canada. All Contractor-supplied parts and associated labour will carry a ninety-day (90) warranty.

14. Modification of Equipment List

Canada reserves the right to add equipment to and/or delete equipment from the Contract upon thirty (30) days' written notice. The Contract price shall be adjusted to reflect the change in price resulting from any such additions or deletions.

ANNEX A**REQUIREMENT / BASIS OF PAYMENT**

The Department of National Defence across Canada has a requirement for the maintenance, service and repair of fifteen (15) GE Proteus and two (2) GE Silhouette General Radiography apparatus in accordance with the Statement of Work and mandatory criteria detailed in the Request for Proposal. The contract will be from the date of contract for a period of one year with an option to renew contract annually for up to four (4) additional one year period and including an option to purchase additional items.

AREA 1 - EASTERN REGION**ITEM 1**

Basis of Payment: Firm, all inclusive maintenance, service and repair. All applicable travel and living expenses must be included. GST/HST Extra.

Asset	Model	Location	Unit of issue	Firm price for 1 year from date of contract 2012-2013
727290	Proteus	CFB Halifax	Year	\$ _____
727291	Proteus	CFB Greenwood	Year	\$ _____
727292	Proteus	CFB Gagetown	Year	\$ _____
731265	Silhouette	CFB Halifax	Year	\$ _____

OPTIONAL YEARS:

Asset	Model	Location	Unit of issue	Firm price for 1st year option 2013-2014	Firm price for 1st year option 2014-2015	Firm price for 1st year option 2015-2016	Firm price for 1st year option 2016-2017
727290	Proteus	CFB Halifax	Year	\$ _____	\$ _____	\$ _____	\$ _____
727291	Proteus	CFB Greenwood	Year	\$ _____	\$ _____	\$ _____	\$ _____
727292	Proteus	CFB Gagetown	Year	\$ _____	\$ _____	\$ _____	\$ _____
731265	Silhouette	CFB Halifax	Year	\$ _____	\$ _____	\$ _____	\$ _____

OPTIONAL ITEMS:**ITEM 2****Disassembly, Package and Re-installation**

- 2.1** To provide the hourly technical fee required for the disassembly, packaging and re-installation of an asset from one location to another.

Basis of Payment: The bidder must quote firm hourly rates. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm hourly technician fee for 1 year from date of contract (2012-2013)	\$ _____/hourly
Firm hourly technician fee for 1st option year (2013-2014)	\$ _____/hourly
Firm hourly technician fee for 2nd option year (2014-2015)	\$ _____/hourly
Firm hourly technician fee for 3rd option year (2015-2016)	\$ _____/hourly
Firm hourly technician fee for 4th option year (2016-2017)	\$ _____/hourly

- 2.2** To provide a firm, all-inclusive fee for the packaging material required for the disassembly, the packaging and the re-installation of the asset at the new location.

Basis of Payment: The bidder must quote firm unit prices per packaging. Goods and Services Tax (GST) and/or the Harmonized Sale Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and taxes must be included.

Firm price per packaging material for 1 year from date of contract (2012-2013)	\$ _____/packaging
Firm price per packaging material for 1st option year (2013-2014)	\$ _____/packaging
Firm price per packaging material for 2nd option year (2014-2015)	\$ _____/packaging
Firm price per packaging material for 3rd option year (2015-2016)	\$ _____/packaging
Firm price per packaging material for 4th option year (2016-2017)	\$ _____/packaging

ITEM 3**3.1 X-Ray Tube**

Basis of Payment: The bidder must quote firm unit prices , DDP (Area 1 to 5 inclusive), the Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and Excise taxes for goods must be included.

X-ray Tube for 1 year from date of contract (2012-2013)	\$ _____/each
X-ray Tube for 1st option year (2013-2014)	\$ _____/each
X-ray Tube for 2nd option year (2014-2015)	\$ _____/each
X-ray Tube for 3rd option year (2015-2016)	\$ _____/each
X-ray Tube for 4th option year (2016-2017)	\$ _____/each

3.2 X-ray Tube Installation

Basis of Payment: The bidder must quote firm prices. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm cost per installation for 1 year from date of contract (2012-2013)	\$ _____/installation
Firm cost per installation for 1st option year (2013-2014)	\$ _____/installation
Firm cost per installation for 2nd option year (2014-2015)	\$ _____/installation
Firm cost per installation for 3rd option year (2015-2016)	\$ _____/installation
Firm cost per installation for 4th option year (2016-2017)	\$ _____/installation

AREA 2 - QUEBEC REGION**ITEM 1**

Basis of Payment: Firm, all inclusive maintenance, service and repair. All applicable travel and living expenses must be included. GST/HST Extra.

Asset	Model	Location	Unit of issue	Firm price for 1 year from date of contract 2012-2013
727294	Proteus	BFC St-Jean	Year	\$ _____
727293	Proteus	BFC Bagotville	Year	\$ _____
727289	Proteus	BFC Valcartier	Year	\$ _____
730547	Proteus	BFC Valcartier	Year	\$ _____

OPTIONAL YEARS:

Asset	Model	Location	Unit of issue	Firm price for 1st year option 2013-2014	Firm price for 1st year option 2014-2015	Firm price for 1st year option 2015-2016	Firm price for 1st year option 2016-2017
727294	Proteus	BFC St-Jean	Year	\$ _____	\$ _____	\$ _____	\$ _____
727293	Proteus	BFC Bagotville	Year	\$ _____	\$ _____	\$ _____	\$ _____
727289	Proteus	BFC Valcartier	Year	\$ _____	\$ _____	\$ _____	\$ _____
730547	Proteus	BFC Valcartier	Year	\$ _____	\$ _____	\$ _____	\$ _____

OPTIONAL ITEMS:**ITEM 2****Disassembly, Move and Re-installation**

2.1 To provide the hourly technical fee required for the disassembly, packaging and re-installation of an asset from one location to another.

Basis of Payment: The bidder must quote firm hourly rates. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm hourly technician fee for 1 year from date of contract (2012-2013) \$ _____/hourly
 Firm hourly technician fee for 1st option year (2013-2014) \$ _____/hourly
 Firm hourly technician fee for 2nd option year (2014-2015) \$ _____/hourly
 Firm hourly technician fee for 3rd option year (2015-2016) \$ _____/hourly
 Firm hourly technician fee for 4th option year (2016-2017) \$ _____/hourly

- 2.2** To provide a firm, all-inclusive fee for the packaging material required for the disassembly, the packaging and the re-installation of the asset at the new location.

Basis of Payment: The bidder must quote firm unit prices per packaging. Goods and Services Tax (GST) and/or the Harmonized Sale Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and taxes must be included.

Firm price per packaging material for 1 year from date of contract (2012-2013)	\$ _____/packaging
Firm price per packaging material for 1st option year (2013-2014)	\$ _____/packaging
Firm price per packaging material for 2nd option year (2014-2015)	\$ _____/packaging
Firm price per packaging material for 3rd option year (2015-2016)	\$ _____/packaging
Firm price per packaging material for 4th option year (2016-2017)	\$ _____/packaging

ITEM 3

3.1 X-Ray Tube

Basis of Payment: The bidder must quote firm unit prices , DDP (Area 1 to 5 inclusive), the Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and Excise taxes for goods must be included.

X-ray Tube for 1 year from date of contract (2012-2013)	\$ _____/each
X-ray Tube for 1st option year (2013-2014)	\$ _____/each
X-ray Tube for 2nd option year (2014-2015)	\$ _____/each
X-ray Tube for 3rd option year (2015-2016)	\$ _____/each
X-ray Tube for 4th option year (2016-2017)	\$ _____/each

3.2 X-ray Tube Installation

Basis of Payment: The bidder must quote firm prices. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm cost per installation for 1 year from date of contract (2012-2013)	\$ _____/installation
Firm cost per installation for 1st option year (2013-2014)	\$ _____/installation
Firm cost per installation for 2nd option year (2014-2015)	\$ _____/installation
Firm cost per installation for 3rd option year (2015-2016)	\$ _____/installation
Firm cost per installation for 4th option year (2016-2017)	\$ _____/installation

AREA 3 - ONTARIO REGION**ITEM 1**

Basis of Payment: Firm, all inclusive maintenance, service and repair. All applicable travel and living expenses must be included. GST/HST Extra.

Asset	Model	Location	Unit of issue	Firm price for 1 year from date of contract 2012-2013
727299	Proteus	CFB Petawawa	Year	\$ _____
727298	Proteus	CFB Kingston	Year	\$ _____
727287	Proteus	CFB Trenton	Year	\$ _____
727297	Proteus	CFB Borden	Year	\$ _____

OPTIONAL YEARS:

Asset	Model	Location	Unit of issue	Firm price for 1st year option 2013-2014	Firm price for 1st year option 2014-2015	Firm price for 1st year option 2015-2016	Firm price for 1st year option 2016-2017
727299	Proteus	CFB Petawawa	Year	\$ _____	\$ _____	\$ _____	\$ _____
727298	Proteus	CFB Kingston	Year	\$ _____	\$ _____	\$ _____	\$ _____
727287	Proteus	CFB Trenton	Year	\$ _____	\$ _____	\$ _____	\$ _____
727297	Proteus	CFB Borden	Year	\$ _____	\$ _____	\$ _____	\$ _____

OPTIONAL ITEMS:**ITEM 2****Disassembly, Move and Re-installation**

- 2.1** To provide the hourly technical fee required for the disassembly, packaging and re-installation of an asset from one location to another.

Basis of Payment: The bidder must quote firm hourly rates. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm hourly technician fee for 1 year from date of contract (2012-2013) \$ _____/hourly
 Firm hourly technician fee for 1st option year (2013-2014) \$ _____/hourly
 Firm hourly technician fee for 2nd option year (2014-2015) \$ _____/hourly
 Firm hourly technician fee for 3rd option year (2015-2016) \$ _____/hourly
 Firm hourly technician fee for 4th option year (2016-2017) \$ _____/hourly

- 2.2** To provide a firm, all-inclusive fee for the packaging material required for the disassembly, the packaging and the re-installation of the asset at the new location.

Basis of Payment: The bidder must quote firm unit prices per packaging. Goods and Services Tax (GST) and/or the Harmonized Sale Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and taxes must be included.

Firm price per packaging material for 1 year from date of contract (2012-2013)	\$ _____/packaging
Firm price per packaging material for 1st option year (2013-2014)	\$ _____/packaging
Firm price per packaging material for 2nd option year (2014-2015)	\$ _____/packaging
Firm price per packaging material for 3rd option year (2015-2016)	\$ _____/packaging
Firm price per packaging material for 4th option year (2016-2017)	\$ _____/packaging

ITEM 3

3.1 X-Ray Tube

Basis of Payment: The bidder must quote firm unit prices , DDP (Area 1 to 5 inclusive), the Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and Excise taxes for goods must be included.

X-ray Tube for 1 year from date of contract (2012-2013)	\$ _____/each
X-ray Tube for 1st option year (2013-2014)	\$ _____/each
X-ray Tube for 2nd option year (2014-2015)	\$ _____/each
X-ray Tube for 3rd option year (2015-2016)	\$ _____/each
X-ray Tube for 4th option year (2016-2017)	\$ _____/each

3.2 X-ray Tube Installation

Basis of Payment: The bidder must quote firm prices. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm cost per installation for 1 year from date of contract (2012-2013)	\$ _____/installation
Firm cost per installation for 1st option year (2013-2014)	\$ _____/installation
Firm cost per installation for 2nd option year (2014-2015)	\$ _____/installation
Firm cost per installation for 3rd option year (2015-2016)	\$ _____/installation
Firm cost per installation for 4th option year (2016-2017)	\$ _____/installation

AREA 4 - WESTERN REGION**ITEM 1**

Basis of Payment: Firm, all inclusive maintenance, service and repair. All applicable travel and living expenses must be included. GST/HST Extra.

Asset	Model	Location	Unit of issue	Firm price for 1 year from date of contract 2012-2013
727286	Proteus	CFB Winnipeg	Year	\$ _____
727296	Proteus	CFB Edmonton	Year	\$ _____
727288	Proteus	CFB Shilo	Year	\$ _____

OPTIONAL YEARS:

Asset	Model	Location	Unit of issue	Firm price for 1st year option 2013-2014	Firm price for 1st year option 2014-2015	Firm price for 1st year option 2015-2016	Firm price for 1st year option 2016-2017
727286	Proteus	CFB Winnipeg	Year	\$ _____	\$ _____	\$ _____	\$ _____
727296	Proteus	CFB Edmonton	Year	\$ _____	\$ _____	\$ _____	\$ _____
727288	Proteus	CFB Shilo	Year	\$ _____	\$ _____	\$ _____	\$ _____

OPTIONAL ITEMS:**ITEM 2****Disassembly, Move and Re-installation**

- 2.1** To provide the hourly technical fee required for the disassembly, packaging and re-installation of an asset from one location to another.

Basis of Payment: The bidder must quote firm hourly rates. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm hourly technician fee for 1 year from date of contract (2012-2013) \$ _____/hourly
 Firm hourly technician fee for 1st option year (2013-2014) \$ _____/hourly
 Firm hourly technician fee for 2nd option year (2014-2015) \$ _____/hourly
 Firm hourly technician fee for 3rd option year (2015-2016) \$ _____/hourly
 Firm hourly technician fee for 4th option year (2016-2017) \$ _____/hourly

- 2.2** To provide a firm, all-inclusive fee for the packaging material required for the disassembly, the packaging and the re-installation of the asset at the new location.

Basis of Payment: The bidder must quote firm unit prices per packaging. Goods and Services Tax (GST) and/or the Harmonized Sale Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and taxes must be included.

Firm price per packaging material for 1 year from date of contract (2012-2013)	\$ _____/packaging
Firm price per packaging material for 1st option year (2013-2014)	\$ _____/packaging
Firm price per packaging material for 2nd option year (2014-2015)	\$ _____/packaging
Firm price per packaging material for 3rd option year (2015-2016)	\$ _____/packaging
Firm price per packaging material for 4th option year (2016-2017)	\$ _____/packaging

ITEM 3

3.1 X-Ray Tube

Basis of Payment: The bidder must quote firm unit prices , DDP (Area 1 to 5 inclusive), the Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and Excise taxes for goods must be included.

X-ray Tube for 1 year from date of contract (2012-2013)	\$ _____/each
X-ray Tube for 1st option year (2013-2014)	\$ _____/each
X-ray Tube for 2nd option year (2014-2015)	\$ _____/each
X-ray Tube for 3rd option year (2015-2016)	\$ _____/each
X-ray Tube for 4th option year (2016-2017)	\$ _____/each

3.2 X-ray Tube Installation

Basis of Payment: The bidder must quote firm prices. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm cost per installation for 1 year from date of contract (2012-2013)	\$ _____/installation
Firm cost per installation for 1st option year (2013-2014)	\$ _____/installation
Firm cost per installation for 2nd option year (2014-2015)	\$ _____/installation
Firm cost per installation for 3rd option year (2015-2016)	\$ _____/installation
Firm cost per installation for 4th option year (2016-2017)	\$ _____/installation

AREA 5 - PACIFIC REGION**ITEM 1**

Basis of Payment: Firm, all inclusive maintenance, service and repair. All applicable travel and living expenses must be included. GST/HST Extra.

Asset	Model	Location	Unit of issue	Firm price for 1 year from date of contract 2012-2013
727295	Proteus	CFB Esquimalt	Year	\$_____
732693	Silhouette	CFB Esquimalt	Year	\$_____

OPTIONAL YEARS:

Asset	Model	Location	Unit of issue	Firm price for 1st year option 2013-2014	Firm price for 1st year option 2014-2015	Firm price for 1st year option 2015-2016	Firm price for 1st year option 2016-2017
727295	Proteus	CFB Esquimalt	Year	\$_____	\$_____	\$_____	\$_____
732693	Silhouette	CFB Esquimalt	Year	\$_____	\$_____	\$_____	\$_____

OPTIONAL ITEMS:**ITEM 2****Disassembly, Move and Re-installation**

- 2.1** To provide the hourly technical fee required for the disassembly, packaging and re-installation of an asset from one location to another.

Basis of Payment: The bidder must quote firm hourly rates. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm hourly technician fee for 1 year from date of contract (2012-2013) \$_____/hourly
 Firm hourly technician fee for 1st option year (2013-2014) \$_____/hourly
 Firm hourly technician fee for 2nd option year (2014-2015) \$_____/hourly
 Firm hourly technician fee for 3rd option year (2015-2016) \$_____/hourly
 Firm hourly technician fee for 4th option year (2016-2017) \$_____/hourly

- 2.2** To provide a firm, all-inclusive fee for the packaging material required for the disassembly, the packaging and the re-installation of the asset at the new location.

Basis of Payment: The bidder must quote firm unit prices per packaging. Goods and Services Tax (GST) and/or the Harmonized Sale Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and taxes must be included.

Firm price per packaging material for 1 year from date of contract (2012-2013)	\$ _____/packaging
Firm price per packaging material for 1st option year (2013-2014)	\$ _____/packaging
Firm price per packaging material for 2nd option year (2014-2015)	\$ _____/packaging
Firm price per packaging material for 3rd option year (2015-2016)	\$ _____/packaging
Firm price per packaging material for 4th option year (2016-2017)	\$ _____/packaging

ITEM 3

3.1 X-Ray Tube

Basis of Payment: The bidder must quote firm unit prices , DDP (Area 1 to 5 inclusive), the Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and Excise taxes for goods must be included.

X-ray Tube for 1 year from date of contract (2012-2013)	\$ _____/each
X-ray Tube for 1st option year (2013-2014)	\$ _____/each
X-ray Tube for 2nd option year (2014-2015)	\$ _____/each
X-ray Tube for 3rd option year (2015-2016)	\$ _____/each
X-ray Tube for 4th option year (2016-2017)	\$ _____/each

3.2 X-ray Tube Installation

Basis of Payment: The bidder must quote firm prices. Travel and living expenses are extra and must be in accordance with the then-current Treasury Board Guidelines, without any allowance for overhead or profit.

Firm cost per installation for 1 year from date of contract (2012-2013)	\$ _____/installation
Firm cost per installation for 1st option year (2013-2014)	\$ _____/installation
Firm cost per installation for 2nd option year (2014-2015)	\$ _____/installation
Firm cost per installation for 3rd option year (2015-2016)	\$ _____/installation
Firm cost per installation for 4th option year (2016-2017)	\$ _____/installation

ANNEX B

STATEMENT OF WORK SERVICE, MAINTENANCE AND REPAIR FOR THE GE PROTEUS AND SILHOUETTE X-RAY SYSTEMS

1.0 SCOPE

1.1 BACKGROUND

The Canadian Forces (CF), as part of its Health Services mandate, has Medical Clinics located across Canada. The clinics vary in size and personnel, as well as the medical equipment located at each site. DND currently has 2 types of X-Ray systems: The Proteus radiographic system with an overhead tube, elevating table, and bucky wallstand, whereas the Silhouette system has a smaller footprint and a freestanding design. There are a total of 17 X-Ray systems in use in the CF; the fifteen (15) Proteus systems are located at various CF Medical Clinics and the two (2) Silhouette systems are located onboard Navy vessels

1.2 TECHNICAL INFORMATION

a) The Proteus System includes:

- Proteus System Console
- Proteus OTS Assembly
- Jedi STD HV Tank
- Jedi 80R IT
- Proteus System Cabinet 50KW
- Proteus Elevating Table
- Diagnostic X-ray Wallstand
- Medys Ion Chamber W / 24M
- Proteus System Software
- Rad-14X-ray Tube
- Auto Collimator
- AEC Option
- Cassette Holder 30x90
- MB2000LH with Labels
- XT Inboard Bridge F/Concl

b) The Silhouette System includes:

- Console
- Table
- Tank
- Collimator
- Tube

1.3 *USAGE*

On average, DND may make 2 to 4 calls per site per year. Of the calls, approximately 50% may result in the contractor having to come on-site for repair and maintenance services.

The Preventative Maintenance inspection and Healing Art Radiation Protection (H.A.R.P.) testing may result in an additional visit, unless combined with a Service call

2.0 **APPLICABLE DOCUMENTS**

- (a) Canada Labour Code SOR/DORS/86-304 - Canada's Occupational/Safety and Health Regulations

Bilingual version : <http://www.laws-lois.justice.gc.ca/PDF/N/SOR-DORS-86-304.pdf>

- (b) C-oe-040-009/AG-000 DND Safety Standards, Chapter 17 - Electrical Safety Standards;

English version : <http://vcds.mil.ca/sites/page-eng.asp?Page=10227>

- (c) Provincial and Territorial Occupational health and Safety Act and Regulations;

English version: <http://www.ccohs.ca/oshanswers/legisl/intro.html>

- (d) CSA Standard-22-1 - Canadian Electrical Code; C22-2 - General requirement, and C22-2 0.3 - Test methods for electrical wires and cables;

- (e) Underwriters Laboratories of Canada (ULC);

English version: <http://www.ul.com/canada/eng/pages/>

- (f) Healing Arts Radiation Protection Act, Ontario;

Http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h02_e.htm

Http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900543_e.htm

- (g) Health Canada Safety Code 35

English version:

Http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/safety-code_35-securite/index-eng.php

- (h) A registered device with Health Canada*

Note: Repair parts must permit the X-Ray system to maintain its Health Canada device license.

3.0 REQUIREMENTS

3.1 REQUIREMENT

3.1.1 SERVICE, MAINTENANCE and REPAIR

The services must include, but are not limited to, parts required to perform the annual Preventative Maintenance inspections and service calls to repair the equipment "as and when requested" with DND only.

3.1.2 DISASSEMBLY and RE-INSTALLATION

DND is currently renovating existing and installing new Health Services infrastructure across Canada. There may be a requirement, as and when needed, to disassemble, move and reinstall an existing asset at an alternate location. The contractor will be responsible for sending a resource to disassemble the asset, package it and the re-installation at the new location. The contractor must ensure that once the equipment is moved and re-installed, the equipment must be functioning in accordance with the manufacturer's installation guidelines. DND will be responsible for acceptance testing.

3.1.3 X-RAY TUBE SUPPLY AND INSTALLATION

If the X-Ray tube is found to be defective, DND may request the supply and installation of the X-Ray tube.

3.2 TASKS

3.2.1 Provide a 60 minutes response time following an inquiry, service and/or maintenance call.

3.2.2 A field service technician must provide an assessment within 24 hours one (1) business day of the initial inquiry, service and/or maintenance call.

3.2.3 Service/Maintenance must commence within 48 hours following assessment by the field Service technician. If repair parts and accessories are not available, the contractor must immediately inform the Technical Authority (TA) and provide a revised repair/service date

3.2.4 Provide at least one (1) preventative maintenance inspection each year, per asset location. This task is to include a Healing Art Radiation Protection (H.A.R.P)H.A.R.P certification.

3.3 *TECHNICAL REQUIREMENT*

- 3.3.1 The service and maintenance must include all parts (with the exception of the X-Ray Tube) required to maintain or repair the equipment.
- 3.3.2 Include any software updates generally provided by the manufacturer of the equipment.
- 3.3.3 Include any modification, upgrade, or repair of the licensed software by the manufacturer of the equipment that materially changes the efficiency or functional capability of the licensed software and is not solely an Error correction.

3.4 *CONSTRAINTS*

- 3.4.1 Services must be performed weekdays, between 8 a.m. and 5 p.m. , excluding Statutory Holidays
- 3.4.2 The two (2) Silhouette X-Ray systems are located onboard Navy Vessels. Resources with limited mobility/physical restrictions may have difficulty accessing the Medical bay due to steep staircases, narrow passages and restricted access.

4.0 **DELIVERABLES**

The contractor must deliver the following, as and when requested :

- 4.1 Return call to the operator to confirm initial inquiry, service and/or maintenance call (Task 4.1.1)
- 4.2 A field service technician must provide a written Notice of Assessment . The assessment must include the asset, location, assessment and services required, Date, time, field service technician name (Task 4.1.2). The Notice of Assessment must be provided in Softcopy to the Technical Authority
- 4.3 Upon completion of the service and maintenance task, the field service technician must provide a Repair Log . The repair log must include the asset, location, description of services rendered, date, time, field service technician name (Task 4.1.3). The Repair Log must be provided in Softcopy to the Technical Authority
- 4.4 One month following contract award, the contractor must provide a schedule for the annual preventative maintenance for each location. The schedule must include, at minimum: Asset number, location, Completion date of previous preventative maintenance, Projected date of the current preventative maintenance, etc (Task 4.1.4)

5.0 **LANGUAGE OF WORK**

Work must be performed and delivered in English, except for the province of Quebec where accommodations must be made to provide services in French, if requested.

Solicitation No. - N° de l'invitation

W3931-120271/A

Amd. No. - N° de la modif.

File No. - N° du dossier

pv915W3931-120271

Buyer ID - Id de l'acheteur

pv915

CCC No./N° CCC - FMS No/ N° VME

W3931-120271

6.0 LOCATION OF WORK

The majority of the work will be performed at various locations across Canada.
Refer to Annex A - Requirement / Basis of Payment.

ANNEX C

MANDATORY SPECIFICATIONS

- 1.0** The Bidder must have, at minimum, one (1) year service and maintenance experience with the Proteus, Silhouette and/or other X-ray system.

Reference in Contractors Proposal: _____

- 2.0** The bidder must have, at minimum, one (1) service field engineer.

Reference in Contractors Proposal: _____

ANNEX C-1

POINT RATED SPECIFICATIONS

1.0 Medical facility (maximum of 5 points)

Provide the number of medical facilities to whom Repair and Maintenance Services are within the last 12 months being provided to. A facility is defined as one (1) Medical Clinic and/or Hospital (e.g. CFB Petawawa - Medical Clinic, The Children's Hospital of Eastern Ontario, etc.).

- >1-5 facilities (1 point)
- >6-15 facilities (3 points)
- >16 or more facilities (5 points)

2.0 Service/Maintenance Assets (maximum of 5 points)

Provide the number of assets within the last 12 months under maintenance. An asset is defined as one (1) X-ray system (e.g. CFB Valcartier - Medical Clinic currently has two (2) Proteus system on site > 2 assets).

- >1-20 assets (1 point)
- >21-40 assets (3 points)
- >41 or more assets (5 points)

3.0 Years of experience (maximum of 6 points)

Provide the number of years of Service and Maintenance experience, in excess of one (1) year, with the Proteus, Silhouette, and/or other X-ray system.

- >1-3 years (2 point)
- >4-6 years (4 points)
- >in excess of 6 years (6 points)

ANNEX D

CHAPT

ER 17

Effective : 01 Jan 2003 (Replaces Chapter 17 01 Jan 1999)

ELECTRICAL SAFETY STANDARD

This chapter contains the following:

17-1Ch/mod #1 2003-01-01

Title	Page
Administration and Application Document	17-1
Purpose	17-2
Application	17-2
Scope	17-3
Responsibilities	17-3
Special Provisions	17-3
References	17-4
OPI's	17-4
Annex A – Treasury Boad Directive 2-3, Electrical Safety Standard	17A-1
Grievance procedure	17A-2
Application	17A-2
Exceptions	17A-2
Definitions	17A-2
Design, construction, installation, operation, use, repair, maintenance and alterations	17A-4
General precautions	1 7A-4
Consent to work on high voltage electrical equipment	17A-6
Safety Watcher	17A-6
Co-ordination of work	17A-6
Protective clothing and equipment	17A-7
Testing of insulated clothing, equipment and tools	1 7A-7
Poles and elevated structures	17A-8
Isolation of electrical facilities	1 7A-8
Capacitors	17A-8
Battery rooms	17A-9
Switches and control devices	17A-9
Conductive equipment	17A-9
Lightning protection	1 7A- 10
Isolation of electrical facilities	1 7A- 10
Guarantees of isolation for electrical equipment	1 7A- 12
Live test	17A-14
Termination of guarantee of isolation	1 7A- 15
Safety grounding	1 7A- 15
Reference	1 7A- 17
Appendix A Effects of Electrical Contact (list)	1 7A- 18
Effects of Electrical Contact (graphic)	17A-19
Table 1 Distances From Live Electrical Parts	17A-20

Title	Page
Annex B – Use of Electrical Shock Warning Labels Standard	17B-1
Purpose	17B-1
Application	17B-1
General	17B-1
Use of Electrical Shock Warning Labels	17B-2
Procedures	17B-2
Location	17B-2
Note	17B-3/17B-4
Installation	1 7B-3/1 7B-4
Annex C – Insulated Gloves, Mitts, Sleeves and Blankets Safety Standard	17C-1
Purpose	17C-1
Application	17C-1
General	17C-1
Policy	17C-2
a. Rubber Gloves and Mitts	17C-2
b. Rubber Sleeves	17C-2
c. Rubber Blankets	17C-3/17C-4
Special Note	17C-3/17C-4
Annex D – Electrical Safety Certification and Approval Safety Standard	17D-1
General	17D-1
Policy	17D-1
Background	17D-1
Approved	17D-1
OPI's	17D-2

PURPOSE

1. The purpose of this chapter is to promulgate the TB Electrical Directive 2-3 at Annex A, the excerpt from CFTO C-02-040-0013/TS-001 at Annex B and the excerpt from A-LM-182-001/JS-001 at Annex C as General Safety Standards and to prescribe their implementation in DND and the CF.

APPLICATION

2. Canadian legislation in occupational health and safety is based on the internal responsibility system. Under this system both labour and management participate in decisions affecting the health and safety of workers, and this is most seen via the “participation” of the workplace OHS Committees. The system recognizes that both workers and employers benefit from sharing an effective general safety and occupational health program. Government and their agencies have a role in the internal responsibility system by providing guidelines and rules in the form of legislation, regulations, directives and standards. Various provincial and territorial occupational health and safety laws are not applicable to federal public servants. The Canada Labour Code, Part II and its Regulations also apply to Non-Public Funds (NPF) employees unless specifically exempted. The Code, its OSH Regulations and Treasury Board Directives and

Standard therefore apply to the Department of National Defence and its civilian employees.

3. The Canada Labour Code, Part II only applies to CF members in those instances where they have direct management and/or supervisory responsibilities over DND civilian employees or any other non-CF person granted access to the workplace. It is DND/CF policy to have its military component comply with General Safety Policy as contained in A-GG-040-001/AG-001 and its related documentation, and with the General Safety Standards as contained in C-02-040-009/AG001. A commander may override a General Safety Standard if it places a serious limitation on the capability to fulfill a Canadian Forces operational or training commitment. When the nature or urgency of an operational or a training situation requires the departure from General Safety Policy or Standards, the applicable Commander shall employ recognized risk management practices to determine an appropriate course of action and must be prepared to justify the decision. In cases where the departure from General Safety Policy or Standards will be of a continuing nature, applicable Commanders must seek approval from Higher Headquarters for the continued action.

SCOPE

4. These standards apply to personnel, material, works and buildings throughout DND and the CF.
5. These standards do not apply to military operational equipment such as ships, combat vehicles, aircraft, and equipment of special design used in direct support of these or other specialized military applications.

RESPONSIBILITIES

6. DND and CF authorities responsible for the design, engineering, procurement, installation, operation and maintenance of facilities, installations, equipment and the management of personnel shall ensure compliance with the provisions.
7. Accordingly, such authorities are to ensure that safety measures to meet or exceed these minimum requirements are incorporated in all applicable orders, directives and publications.

SPECIAL PROVISIONS

8. In applying the Annex A standard, it will be noted that there is a provision in Annex A, at para 5, concerning the submission of plans to the appropriate provincial or municipal agency, where major alterations to electrical facilities are involved. OPIs are encouraged to follow this procedure wherever practical. It is recognized however that particular situations may arise where for reasons of security or other major considerations, the submission of such plans may not be appropriate. Accordingly, decisions in this regard are left to the discretion of OPIs.

REFERENCES

9. This standard prescribes the following publications and documents as forming a part of this standard. Other reference documents may also need to be referred to and their absence from this list in no way precludes their relevance;
- a. A-LG-040-000/QR-002, Canada Labour Code Part II;
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/canada/caeclc/caaclce0.htm>
 - b. Canada Occupational Safety and Health Regulations, Part VII, Electrical Safety, (as amended);
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/canada/caeclc/caroshe0.htm>
 - c. A-GG-040-001/AG-001, General Safety Program, Volume 1, Policy and Program;
http://vcds.mil.ca/dsafeg/pubs/vol1/intro_e.asp
 - d. C-02-040-009/AG-002, General Safety Program, Volume 2 General Safety Standards, chapter 14, Personal protective equipment and clothing safety standard, chapter 19, annex B –Colour dynamics for the General Safety Program, and chapter 37, Work place safety signs and symbols safety standard.
http://vcds.mil.ca/dsafeg/pubs/dndp41/intro_f.asp
 - e. CSA Standard C22.1-1990, Safety Standard for Electrical Installations, dated January 1990 (as amended)
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/stds/csa/ccecp90e.htm>
 - f. CSA Standard Z259.4-M1979, Rubber Insulating Gloves and Mitts, (as amended)
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/stds/csa/crigm79e.htm>
 - g. CSA Standard C22.3 n° 1-M1979, Overhead Systems and Underground Systems, dated April 1979, (as amended)
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/stds/csa/covsy79e.htm>
 - h. CSA Standard C22. 1-94 n° 1-M1 979, Canadian Electrical Code, (as amended)
 - i. CSA Standard B72-M87, Installation Code for Lightning Protection Systems, (as amended)
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/stds/csa/ciclp87e.htm>
 - j. CSA Standard CAN3-015-M83, Wood Utility Poles and Reinforcing Studs, dated Jan 1983, (as amended),
 - k. CSA Standard A14-M1979, Concrete Poles, September 1979, (as amended)
<http://admie.ottawa-hull.mil.ca/Dge/EnviroOSH/documents/stds/csa/cconp79e.htm>
 - l. C-02-006-002/AG-000, information Markings on CF Equipment.

BPRs:

BPR Admin: - DSG3 - Quartier générale de la Défense Nationale, Ottawa, K1A-0K2.

BPR du sujet: - Directeur-Politiques du génie et de l'immobilier (DPGI); - Quartier générale de la Défense Nationale, Ottawa, K1A-0K2 ,

- Directeur Électronique, communications et spectre de fréquences (Services) (DECSFS); - Quartier générale de la Défense Nationale, Ottawa, K1A-0K2; et

- Directeur Service des incendies (Forces canadiennes) (DSIFC), - Quartier générale de la Défense Nationale, Ottawa, K1A-0K2.

GENERAL SAFETY STANDARDS - CHAPTER 17, ANNEX A

Effective: 01 Jan 99 (Replaces annex A to chapter 17 dated 1 Apr 1997)

ELECTRICAL SAFETY STANDARDS (TB Directive 2-3 - 30 June 93)

TABLE OF CONTENTS

Section	Title	Page
	Grievance procedure	17A-1
	Application	17A-2
	Exceptions	17A-2
	Definitions	17A-2
	Design, construction, installation, operation, use, repair, maintenance and alteration	17A-4
	General precautions	17A-4
	Consent to work on high voltage electrical equipment	17A-5
	Safety watcher	17A-6
	Co-ordination of work	17A-6
	Protective clothing and equipment	17A-6
	Testing of insulated clothing, equipment and tools	17A-7
	Poles and elevated structures	17A-7
	Isolation of electrical facilities	17A-8
	Capacitors	17A-8
	Battery rooms	17A-8
	Switches and control devices	17A-9
	Conductive equipment	17A-9
	Lightning protection	17A-9
	Isolation of electrical facilities	17A-9
	Guarantees of isolation for electrical equipment	17A-11
	Live test	17A-13
	Termination of guarantee of isolation	17A-14
	Safety grounding	17A-15
	Reference	17A-17
Appendix A - Effects of Electrical Contact (List)		17A-17
- Effects of Electrical Contact (Graphic)		17A-18
Table 1 – Distances From Live Electrical Parts		17A-19/20

Grievance procedure

In cases of alleged misinterpretation of misapplication arising out of this standard, the grievance procedure, for all represented employees, within the meaning of the *Public Service Staff Relations Act*, will be in accordance with Section 7.0 of the *National Joint Council By-Laws*. For unrepresented employees the departmental grievance procedure applies.

This standard is deemed to be part of collective agreement between the parties to the National Joint Council and employees are to be afforded ready access to this standard.

C-02-040-009/AG-1
Annex A, Chapter 17

Application

1. This standard incorporates the minimum requirements of the *Canada Labour Code*, Part II and applicable regulations issued pursuant to that legislation, and applies to all departments and other portions of the Public Service, as defined in Part 1 of Schedule 1 of the *Public Service Staff Relations Act*.

Exceptions

2. This standard does not apply to hearing aids, watches or other electrically powered devices that have an amperage and voltage that are not dangerous to employees.

Definitions

3. In this standard:

Ampacity means current-carrying capacity expressed in amperes (*ampacité*);

Canadian electrical code means

- (a) CSA Standard C22.1-1986, Safety Standard for Electrical Installations, dated January, 1986; and
- (b) CSA Standard C22.3 No. 1-M1979, Overhead Systems and Underground Systems, dated April, 1979 (*code canadien de l'électricité*);

Control device means a device that will safely disconnect electrical equipment from its source of energy (*dispositif de commande*);

Electrical equipment means equipment for the generation, distribution or use of electricity (*outillage électrique*);

Electrical shock is the effect produced on the body, and in particular the nerves, by an electrical current passing through it. The magnitude of the shock depends on current flow, usually measured in milliamperes (mA); rather than by voltage (measures in volts). It is possible to have extremely high voltages with little current and no injury occur in the voltage discharge.

Appendix A shows the health effects of various currents.

A shock from DC has less muscular contraction effect than AC, the tendency being to cause the victim to violently withdraw from contact if possible, so that the period of contact is usually short (*choc électrique*).

Guarantee of isolation means, in respect of electrical equipment, a guarantee in writing by the person in charge that it is isolated (*attestation de coupure de la source*);

Guarantor means a person who gives a guarantee of isolation (*garant*);

Guarded means that an electrical equipment is covered, shielded, fenced, enclosed or inaccessible by location or otherwise protected in a manner that will prevent or reduce danger to any person who might touch or go near that equipment (*protégé*);

High voltage means a voltage of seven hundred and fifty-one volts or more between any two conductors or between any conductor and ground (*haute tension*);

Locked out means, in respect of any electrical equipment, that the equipment has been rendered inoperative and cannot be operated or energized without the consent of the person who rendered it inoperative (*verrouillé*);

Person in charge means a qualified person who supervises employees performing work in order to ensure the safe and proper conduct of an operation or of the work of employees (*responsable*);

Qualified person means a person who, because of knowledge, training and experience, is licensed or otherwise qualified to perform safely and properly a specified job (*personne qualifiée*);

Qualified electrician means a person who, because of knowledge, training and experience, is licensed and otherwise qualified to perform safely and properly a specified job (*électricien compétent*);

Safety ground or safety grounding means a system of conductors, electrodes and clamps, connections or devices that electrically connect an isolated electrical facility to ground for the purpose of protecting employees working on the facility from dangerous electrical shock (*prise de terre de sécurité*);

Safety officer means a person designated as a safety officer pursuant to the *Canada Labour Code*, Part II, and includes a regional safety officer (*agent de sécurité*);

Voltage means the greatest root-mean-square voltage between any two conductors of an electrical circuit, or between any conductor of a circuit and ground, and in respect to a direct current electrical circuit means the greatest voltage between any two conductors of the circuit or between any conductor of the circuit and ground (*ground*).

Departments shall ensure that requirements specified in the *Canada Occupational Safety and Health Regulations*, Part VIII, Electrical Safety Regulation, issued pursuant to the *Canada Labour Code*, Part II, are applied at every work place occupied by employees.

Design, construction, installation, operation, use, repair, maintenance and alteration

4. The design, construction and installation of all electrical equipment shall meet the standards set out in the *Canadian Electrical Code* to the extent that is essential for the safety and health of employees.

C-2-040-009/AG-001
Annex A, Chapter 17

The operation and maintenance of all electrical equipment shall meet the standards set out in the *Canadian Electrical Code*.

- 5 Where practicable, plans and specifications in respect of new electrical facilities and/or major alterations to existing facilities, including plans relating to the installation or relocation of equipment and the location and siting of work areas, shall be submitted to the appropriate municipal or provincial agency for review and comment prior to the commencement of such work.

General precautions

- 6 No employee shall be permitted to install, modify, adjust, test, operate, repair or do any other similar work on electrical equipment, and no employee shall do any such work, unless:
- (a) the employee is a qualified person and the qualified person
 - (i) shall use such insulated protective equipment and tools that are necessary to prevent injury; and
 - (ii) shall be instructed and trained in the use of the insulated protective equipment and tools; or
 - (b) the employee has been instructed and trained in
 - (i) the safe use of the tools and equipment required to do the work, and the safety precautions necessary to avoid injury to himself or herself and other employees;
 - (ii) uses such insulated protective equipment and tools necessary to prevent injury; and
 - (iii) does such work under the direct supervision of a qualified person.
- 7 Where electrical equipment is not live, but is capable of becoming live, no employee shall work on that equipment unless it is completely isolated by a locking device and a safety ground is properly connected to that equipment and it is tagged as locked out.
- 8 Where electrical equipment is live or is not properly isolated, no employee shall work on the equipment unless:
- (a) the employer has provided detailed instructions in procedures that are safe for work on live conductors and live equipment; and

- (b) if so required by paragraph 16, a safety watcher is present.
- 9 Where employees are working on or near electrical equipment that is live, or is capable of becoming live, the person in charge shall ensure that the electrical equipment is guarded and warning signs attached, or that other measures acceptable to a safety officer are taken to protect persons from injury.
10. Subject to paragraph 11, where it is not practicable for electrical equipment referred to in paragraph 9 to be guarded, the department shall take measures to protect the employee from injury by insulating the equipment from the employee or the employee from ground.
- 11 Where live electrical equipment is not guarded or insulated in accordance with paragraphs 8 or 9 or where the employee referred to in paragraph 9 is not insulated from ground, no employee shall work so near to any live part of the electrical equipment, that is within a voltage range listed in column I of an item of Table 1, that the distance between the body of the employee or any thing with which the employee is in contact and the live part of the equipment is less than:
- (1) the distance set out in column II of that item, where the employee is not a qualified person, or
 - (2) the distance set out in column III of that item, where the employee is a qualified person.
- 12 No employee shall work near a live part of any electrical equipment referred to in paragraph 11 where there is a hazard that an unintentional movement by the employee would bring any part of his or her body or any thing with which he or she is in contact closer to that live part than the distance referred to in that paragraph.
13. A legible sign with the words "Danger — High Voltage" and "Danger — Haute Tension" in letters that are not less than 50 mm in height on a contrasting background shall be posted in a conspicuous place at every approach to live high voltage electrical equipment.

Consent to work on high voltage electrical equipment

14. No employee shall be permitted to work on any high voltage electrical equipment without the written consent of the person in charge of that equipment, except where the operation of the equipment is necessary to prevent loss of life, serious injury or extensive damage to property or equipment.
15. No employee, other than a qualified person, shall enter alone or be permitted to enter any part of an electrical vault or station in which live high voltage electrical equipment is installed without the consent of the person in charge of that equipment.

C-02-040-009/AG-001
Annex A, Chapter 17
Safety watcher

16.(1) Where an employee is working on or near live electrical equipment and, because of the nature of the work or the condition or location of the work place, it is necessary for the safety of the employee that the work be observed by a person not engaged in the work, the employer shall appoint a safety watcher:

- (a) to warn all employees in the work place of the hazard, and
- (b) to ensure that all safety precautions and procedures are complied with.

16.(2) A safety watcher shall be:

- (a) a qualified person informed of the duties of a safety watcher and of the hazards involved in the work being carried out;
- (b) trained and instructed in procedures to follow in the event of an emergency;
- (c) authorized to stop immediately any work that is considered dangerous; and
- (d) free of any other duties that might interfere with the duties as a safety watcher.

Co-ordination of work

17. Where an employee is working on or in connection with electrical equipment, that employee and every other person who is so working, including every safety watcher, shall be fully informed by the person in charge with respect to the safe coordination of their work.

Protective clothing and equipment

18. No employee shall work on electrical equipment unless that employee uses such protective and insulated clothing and equipment as is necessary.

Determination of the protective clothing and equipment to be used shall be in accordance with the Personal Protective Equipment and Clothing Directive 1-3.

19. Unless otherwise specified in writing by a safety officer, no employee shall work on or near live high voltage electrical equipment unless the employee is wearing outer clothing with full-length sleeves fastened at the wrists and that is fabricated from tightly woven natural wool, non-flammable material or some other material that is equally resistant to ignition.

Testing of insulated clothing, equipment and tools

20. Every article of insulated protective clothing, insulated equipment and insulated device or

tool referred to in this standard shall be so designed, constructed and maintained as to be safe,adequate and reliable under all conditions of intended use. Unless each article has been certified by a recognized testing agency before initial use, it shall be tested by a qualified person. Thereafter, it shall be tested annually by an approved method or more frequently as is necessary to ensure it retains its integrity.

21. Each time an article or piece of protective clothing, insulated equipment or an insulated device or tool passes a test, it shall be clearly marked to show the date of the test.
22. Where any protective clothing, equipment, device or tool fails a test, it shall be immediately removed from the service for which it was designed and tested, and so marked, tagged or disabled as to prevent its use until it has been repaired and passed the test.
23. Tests of rubber insulating gloves and mitts shall follow a procedure that complies with Canadian Standards Association standard Z259.4-M1979, Rubber Insulating Gloves and Mitts.
24. Protective clothing, equipment, devices and tools shall be inspected by the user prior to use to ensure that each such item is safe for its intended use.

Poles and elevated structures

25. No employee shall climb or be permitted to climb any pole or elevated structure used to support an electrical equipment unless qualified to do so, and until the employee has examined and tested that pole or structure and determined, from such examination, that the pole or structure is safe for climbing.
26. Where it appears that a pole or elevated structure requires temporary supports to be safe for climbing, such supports shall be installed, and pike-poles alone shall not be used.
27. No employee shall work or be permitted to work on a pole or elevated structure unless the employee is qualified, properly equipped, and instructed and trained in the rescue of persons who may be injured in such work and a safety watcher, determined to be required in accordance with paragraph 16, is present.
28. Every pole or elevated structure that is embedded in the ground and is used to support electrical equipment shall meet the standards set out in:
 - (1) CSA Standard CAN3-015-M83, Wood Utility Poles and Reinforcing Studs, dated January, 1983; or
 - (2) CSA Standard A14-M1979, Concrete Poles, dated September, 1979.
29. No employee shall climb or be permitted to climb or work from a pole or structure referred to in paragraph 28 that is located so near another structure or object, or has affixed to it any thing that is not part of the electrical equipment, which interferes with the safe climbing of the pole or structure or the safe conduct of work therefrom.

C-02-040-009/AG-001
Annex A, Chapter 17

Isolation of electrical facilities

30. Where work is to be performed on electrical equipment, and the equipment requires isolation to permit work or live tests to be performed thereon, or its isolation is changed or terminated, the special requirements contained in paragraphs 41 to 48 shall apply.

Capacitors

31. Where a capacitor that has an ampacity and voltage that is dangerous to employees is disconnected from its source of electrical energy, no person shall short-circuit or apply a safety ground to the capacitor within five minutes of the time it was disconnected, unless the capacitor is already equipped with an adequate short-circuiting and grounding device.
32. Measures shall be taken to ensure that no person shall contact the terminals of a capacitor referred to in paragraph 31 unless the terminals are short-circuited and safety-grounded and a safety watcher, determined to be required in accordance with paragraph 16, is present.
33. The short circuit and safety ground on the capacitor referred to in paragraph 32 shall remain in position until any work on the capacitor that involves contact by an employee is completed, and all persons are clear of the work area.

Battery rooms

34. Departments shall ensure that every room or area in which storage batteries that discharge flammable gases are electrically charged is adequately ventilated to prevent the accumulation of flammable gases, is as free as possible from all sources or causes of ignition, and is operated and maintained in accordance with good industrial safety practice.
35. Each battery charging room or area shall be marked at the entrance thereto with a sign containing the words "Danger — No Smoking or Open Flames" and "Défense de fumer et d'utiliser une flamme nue" or other similar words in letters not less than 50 mm in height on a contrasting background. An approved warning symbol conveying the same meaning as the words specified for the aforementioned sign may be used in lieu.

Switches and control devices

36. The access to every electrical switch, control device or meter shall always be free from obstruction, and control devices shall be so designed and located as to permit quick and safe operations at all times.
37. High voltage electrical switches or other control devices shall not be installed, operated

or used for any purpose other than that for which that equipment was specifically designed and approved.

- 38 Where, for safety reasons, it is necessary that any electrical switch or other device controlling a supply of electrical energy is to be operated only by certain authorized persons, the switch or other device shall be fitted with a locking device or controlled and tagged in such a manner that no unauthorized person can operate it.

Conductive equipment

- 39 Metal rules, measuring tapes, metallic fish wire, wire-reinforced fabric tape, wire-bound hydraulic hoses, portable metal or metal-reinforced ladders or any similar electrically conductive equipment shall not be used so near to live electrical equipment that such conductive equipment may become live.

Lightning protection

40. Lightning protection devices shall comply with Canadian Standards Association standard B72-M87 "Installation Code for Lightning Protection Systems."

Isolation of electrical facilities

41. Before an employee isolates electrical equipment or changes or terminates the isolation of electrical equipment, the department shall issue written instructions with respect to the procedures to be followed for the safe performance of that work.
42. The instructions referred to in paragraph 41 shall be signed by the person-in-charge and shall specify:
 - (1) the date and hour when the instructions are issued;
 - (2) the date and hour of the commencement and of the termination of the period during which the instructions are to be followed;
 - (3) the name of the employee to whom the instructions are issued; and
 - (4) where the instructions are in respect of the operation of a control device that affects the isolation of the electrical equipment:
 - (a) the device to which the instructions apply, and
 - (b) where applicable, the correct sequence of procedures.
43. A copy of the instructions referred to in paragraph 41 shall be shown and explained to the employee.

C-02-040-009/AG-001

Annex A, Chapter 17

44. The instructions referred to in paragraph 41 shall be kept readily available for examination by employees for the period referred to in paragraph 42(2) and thereafter shall be kept by the department for a period of one year at the location nearest to the work place in which the electrical equipment is located.
45. Subject to paragraph 48, no work on or live test of isolated electrical equipment shall be performed unless:
- (1) isolation of the equipment has been confirmed by test; and
 - (2) the person in charge has determined on the basis of visual observation, that every control device and every locking device necessary to establish and maintain the isolation of the equipment:
 - (a) is set in the safety position with the disconnecting contacts of control devices safely separated or, in the case of a draw-out type electrical switch gear, is withdrawn to its full extent from the contacts of the electrical switch gear;
 - (b) is locked out;
 - (c) bears a distinctive tag or sign designed to notify persons that the operation of the control device and the movement of the blocking device is prohibited during the performance of the work or live test;
 - (d) is, where physically possible, locked or blocked in the safe position in such a manner that the position cannot be changed without the consent of the person in charge of the work or test;
 - (3) where it is appropriate and to the extent that it is reasonably practicable, isolation of the facility is confirmed by a test; and
 - (4) to the maximum possible extent, no person can inadvertently make the facility live while the work or test is in progress.
46. Where more than one employee is performing any work on or live test of isolated electrical equipment, a separate tag or sign for each such employee shall be attached to each control device and locking device referred to in paragraph 45.
47. The tag or sign referred to in paragraphs 45(2)(c) or 46 shall:
- (1) contain the word "DO NOT OPERATE — DÉFENSE D'ACTIONNER" or display a symbol conveying the same meaning;
 - (2) show the date and hour that the control device and the locking device referred to in paragraph 45(2) were set in the safe position or were withdrawn to their full

extent from the contacts;

- (3) show the name of the employee performing the work or live test;
- (4) where used in connection with a live test, be distinctively marked as a testing tag or sign;
- (5) be removed only by the employee performing the work or live test; and
- (6) be used for no purpose other than the purpose referred to in paragraph 45(2)(c).

- 48 Where, because of the nature of the work in which the electrical equipment is being used, it is not practicable to comply with paragraph 45, no work on or live test of electrical equipment shall be performed unless a guarantee of isolation referred to in paragraphs 49 and 55 is given to the person in charge.

Guarantees of isolation for electrical equipment

49. No employee shall give or receive a guarantee of isolation unless he or she is authorized by his or her department to give or receive a guarantee of isolation.
50. No more than one employee shall give a guarantee of isolation for a piece of electrical equipment for the same period of time.
51. Before an employee performs work on or a live test of isolated electrical equipment, the person in charge shall receive from the guarantor:
- (1) a written guarantee of isolation, or
 - (2) where it is not practicable for him or her to receive a written guarantee of isolation, an oral guarantee of isolation.
52. A written guarantee of isolation referred to in paragraph 51(1) shall be signed by the guarantor and by the person in charge and shall contain the following information:
- (1) the date and hour when the guarantee of isolation is given to the person in charge;
 - (2) the date and hour when the electrical equipment will become isolated;
 - (3) the date and hour when the isolation will be terminated if known;
 - (4) the procedures by which isolation will be assured;
 - (5) the name of the guarantor and the person in charge; and
 - (6) a statement as to whether live tests are to be performed.

C-2-040-009/AG-001
Annex A, Chapter 17

53. Where an oral guarantee of isolation referred to in paragraph 51(2) is given, a written record thereof shall forthwith:
- (1) be made by the guarantor; and
 - (2) be made and signed by the person in charge.
54. A written record referred to in paragraph 53 shall contain the information referred to in paragraph 52.
55. Every written guarantee of isolation and every written record referred to in paragraph 53 shall be:
- (1) kept by the person in charge readily available for examination by the employee performing the work or live test until the work or live test is completed;
 - (2) given to the department when the work or live test is completed; and
 - (3) kept by the department for a period of one year after completion of the work or live test at a location nearest to the work place in which the electrical equipment is located.
56. Where a written guarantee of isolation or a written record of an oral guarantee of isolation is given to a person in charge and the person in charge is replaced at the work place by another person in charge before the guarantee has terminated, the other person in charge shall sign the written guarantee of isolation or written record of the oral guarantee of isolation.
57. Where the employees working on isolated electrical equipment are divided into two or more crews, each of which is supervised by a person in charge of work on the facility, each such person in charge shall obtain a guarantee of isolation before the crew is permitted to begin work.
58. Before an employee gives a guarantee of isolation for electrical equipment that obtains all or any portion of its electrical energy from a source that is not under his or her direct control, the employee shall obtain a guarantee of isolation in respect of the source from the person who is in direct control thereof and is authorized to give the guarantee in respect thereof.
59. Where electrical energy is supplied to electrical equipment from two or more sources which are under the control of other departments or employers, they may cooperatively agree that a guarantee of isolation for that electrical equipment may be given in respect of each source of energy which shall be designated in writing by the other parties or on behalf of one of the parties as the party responsible for giving the guarantee.
60. The party having been designated pursuant to paragraph 59 as responsible for giving the guarantee may:

- (1) act as the guarantor; or
- (2) designate in writing one or more of its employees to act as the guarantor.

61. Every agreement referred to in paragraph 59 shall state:

- (1) the identity of the equipment to which the agreement applies;
- (2) the period during which the agreement will remain in effect;
- (3) the date of the agreement; and
- (4) the name of the guarantor or guarantors, as the case may be, and shall be signed by the parties thereto.

62. A copy of every agreement referred to in paragraph 59 in respect of any guarantee of isolation shall be readily available to the persons affected by the guarantee while the agreement remains in effect and thereafter be retained by the guarantor for at least one year and be readily available for examination by any such person or by a safety officer.

Live test

63. No employee shall give a guarantee of isolation for the performance of a test on isolated electrical equipment where an auxiliary power source makes the equipment live unless:

- (1) any other guarantee of isolation given in respect of the electrical equipment for any part of the period for which the guarantee of isolation is given is terminated;
- (2) every person to whom the other guarantee of isolation referred to in subparagraph (1) was given has been informed of its termination; and
- (3) any live test to be performed on the electrical equipment will not be hazardous to the safety or health of the person performing the live test.

64. For the purposes of this paragraph, where a guarantee of isolation for the performance of a live test of isolated electrical equipment is given to a person in charge of the test, that person shall, while the test is being performed, be deemed to be the person in charge of the tests and of any other work that is being performed on the equipment while the guarantee is in effect.

65. Every person performing a live test shall warn all persons who, during or as a result of the test, are likely to be exposed to a hazard.

Termination of guarantee of isolation

C-02-040-009/AG-1
Annex A, Chapter 17

66. Every person in charge shall, when work on or a live test of isolated electrical equipment is completed:
- (1) inform the guarantor thereof; and
 - (2) make and sign a record in writing containing the date and hour when he or she so informed the guarantor and the name of the guarantor.
67. On receipt of the information referred to in paragraph 66, the guarantor shall make and sign a record in writing containing:
- (1) the date and hour when the work or live test was completed; and
 - (2) the name of the person in charge.
68. Each record made pursuant to paragraph 67 shall show:
- (1) the day and hour, according to the 24-hour clock, when the guarantee of isolation terminated;
 - (2) the name of the guarantor or any person who has assumed the guarantor's responsibilities;
 - (3) the person to whom the guarantee of isolation was given; and
 - (4) the date and hour in accordance with the 24-hour clock that the guarantor was notified that the guarantee was no longer required.
69. The records referred to in paragraph 66 and 67 shall be kept by the department for a period of one year after the date of signature thereof at a location nearest to the work place in which the electrical equipment is located.

Safety grounding

70. No employee shall attach a safety ground to electrical equipment unless he or she has tested the electrical equipment and has established that it is isolated.
71. Paragraph 70 does not apply in respect of electrical equipment that is grounded by means of a grounding switch that is an integral part of the equipment.
72. Subject to paragraph 73, no work shall be performed on any electrical equipment in an area in which is located:
- (1) a grounding bus,

- (2) a station grounding network,
- (3) a neutral conductor,
- (4) temporary phase grounding, or
- (5) a metal structure

unless the equipment referred to in paragraphs (1) to (5) is connected to a common grounding network.

- ~~73~~ Where, after the connections referred to in paragraph 72 are made, a safety ground is required to ensure the safety of an employee working on the electrical equipment referred to in that paragraph, the safety ground shall be connected to the common grounding network.
74. No safety ground shall be attached or disconnected from isolated electrical equipment except in accordance with the following requirements:
- (1) the safety ground shall, to the extent that is practicable, be attached to the pole, structure, apparatus or other thing to which the electrical equipment is attached;
 - (2) all isolated conductors, neutral conductors and all non-insulated surfaces of the electrical equipment shall be short-circuited, electrically bonded together and attached by a safety ground to a point of safety grounding in a manner that establishes equal voltage on all surfaces that can be touched by persons who work on the electrical equipment;
 - (3) the safety ground shall be attached by means of mechanical clamps that are tightened securely and are in direct contact with bare metal;
 - (4) the safety ground shall be so secured that none of its parts can make contact accidentally with any live electrical equipment;
 - (5) the safety ground shall be attached and disconnected using insulated protection equipment and tools;
 - (6) the safety ground shall, before it is attached to isolated electrical equipment, be attached to a point of safety grounding; and
 - (7) the safety ground shall, before being disconnected from the point of safety grounding, be removed from the isolated electrical equipment in such a manner that the employee avoids contact with all live conductors.
75. For the purposes of paragraph 74(2), a "point of safety grounding" means:

- (1) a grounding bus, a station grounding network, a neutral conductor, a metal structure, or an aerial ground (static wire); or
- (2) one or more metal rods that are not less than 16 mm in diameter and are driven not less than 1 m into undisturbed compact earth at a minimum distance of 4.5 m from the base of the pole, structure, apparatus or other thing to which the electrical equipment is attached or from the area where the persons on the ground work land in a direction away from the main work site.

76. Every conducting part of a safety ground on isolated electrical equipment shall have sufficient current carrying capacity to conduct the maximum current that is likely to be carried on any part of the equipment for such time as is necessary to permit operation of any device that is installed on the electrical equipment so that, in the event of a short circuit or other electrical current overload, the electrical equipment is automatically disconnected from its source of electrical energy.

77. Where there is a dispute regarding the term "qualified person" for purposes of an occupational safety and health standard, the following procedure shall be implemented:

- (a) The employee shall raise the matter directly with the person-in-charge.
- (b) The person-in-charge shall review the employee's qualifications and decide upon the employee's status as a qualified person.
- (c) If the employee is dissatisfied with the decision, the matter shall be referred to the safety and health committee established for the employee's workplace.
- (d) The safety and health committee shall review the matter and make appropriate recommendations to the person-in-charge.
- (e) If the safety and health committee does not consider itself competent to deal with the case, it shall recommend an acceptable third party to the person-in-charge.
- (f) The person in charge shall, pursuant to (d) or (e), take the recommendations into consideration, render a final management decision and undertake the appropriate action.

If the employee does not agree with the final decision which has been rendered, a grievance may be initiated pursuant to the NJC redress procedure.

Reference

This chapter replaces chapter 3-3 of PMM volume 12.

Appendix A

EFFECTS OF ELECTRICAL CONTACT

Appendix A

- C Major burns of increasing extent and severity.
- C Increasing risk of burns at exit and entry points.
- C 75 to 200 milliamperes: Risk of death from Ventricular Fibrillation if current pathway goes through heart.
- C Risk of severe breathing difficulties.
- C Severe shock.

- C Risk of breathing difficulties due to muscular contractions.
- C Cannot release hand grip on conductor due to muscular contractions.
- C Painful sensation (electric shock).
- C Increasingly unpleasant sensation or shock.
- C Mild sensation.
- C Threshold of sensation.
- C Varies from person to person and points of skin contact.

EFFECTS OF ELECTRICAL CONTACT

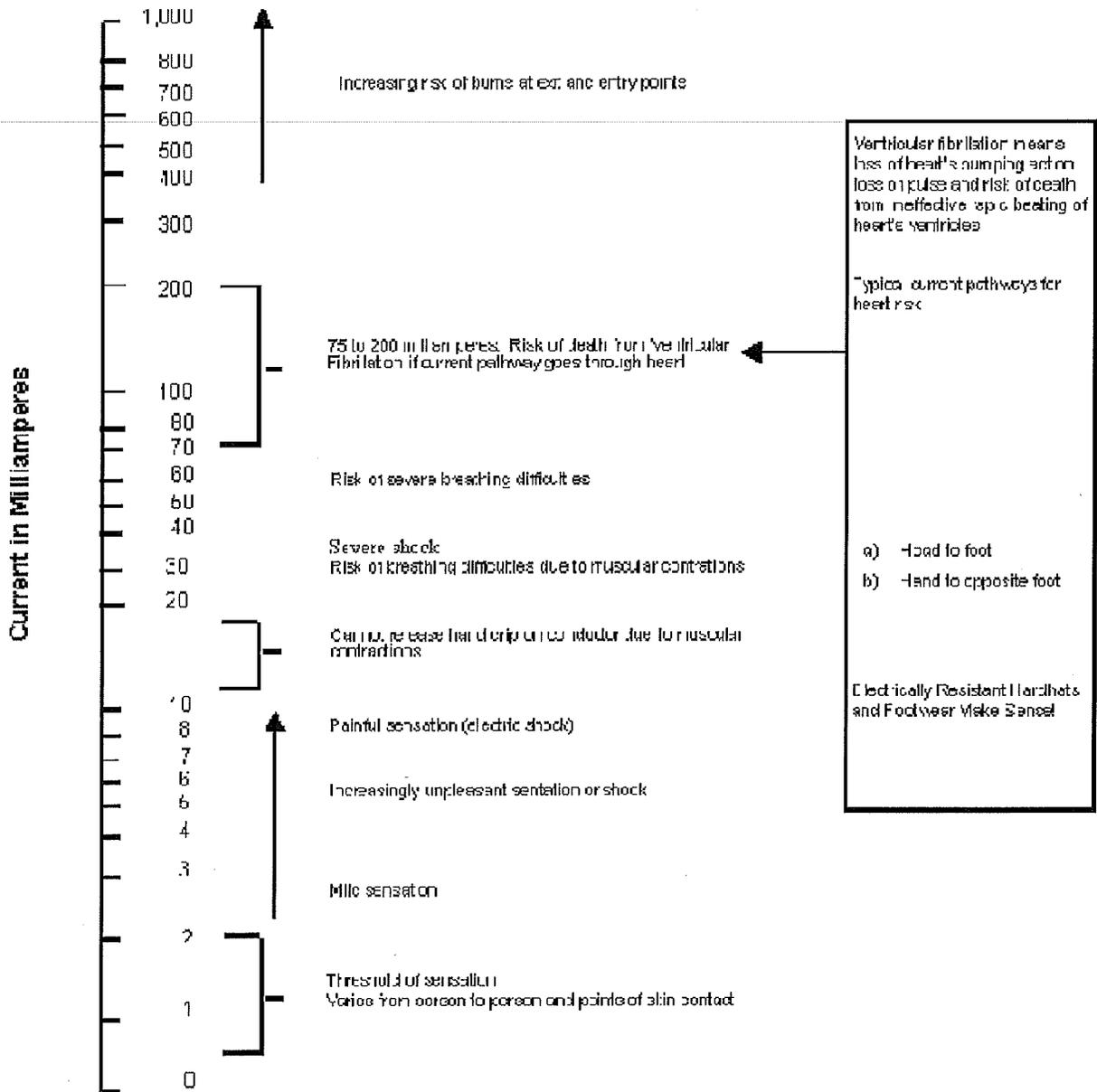


TABLE 1 - DISTANCES FROM LIVE ELECTRICAL PARTS

Column I

Column II

Column III

Item	Voltage Range of Part: Part to Ground	Distance in Metres	Distance in Metres
1	Over 425 to 12,000	3	0.9
2	Over 12,000 to 22,000	3	1.2
3	Over 22,000 to 50,000	3	1.5
4	Over 50,000 to 90,000	4.5	1.8
5	Over 90,000 to 120,000	4.5	2.1

C-2-040-009/AG-001
Annex A, Chapter 17

6	Over 120,000 to 150,000	6	2.7
7	Over 150,000 to 250,000	6	3.3
8	Over 250,000 to 300,000	7.5	3.9
9	Over 300,000 to 350,000	7.5	4.5
10	Over 350,000 to 400,000	9	5.4

GENERAL SAFETY STANDARDS - CHAPTER 17, ANNEX B
Effective: 01 Jan 99 (Replaces annex B to chapter 17 dated 1 Apr 1997)

**USE OF ELECTRICAL SHOCK WARNING LABELS STANDARD
(CFTO - C-02-040-013/TS-001)**

TABLE OF CONTENTS

Section

Title	Page
Purpose	17B-1
Application	17B-1
General	17B-1
Use of Electrical Shock Warning Labels	17B-1
Procedures	17B-2
Location	17B-2
Note	17B-2
Installation	1 7B-2

PURPOSE

1. The purpose of this annex is to promulgate CFTO C_02_040_013/TS_001 Use of Electrical Shock Warning Labels, as a General Safety Standard and to prescribe its implementation in DND and the CF.

APPLICATION

2. This document shall be applied in accordance with pages 17-1 to 17-4.
3. Though military operational commitments are excluded from the scope of this standard, useful elements should, where possible, be incorporated in all applicable orders, directives, and publications.

GENERAL

4. This annex describes the use of electrical shock warning labels. It should be read in conjunction with C_02-006-002/AG-000, Information Markings on Canadian Forces Equipment.
5. An electrical shock warning label is a visual warning of the existence of possible electrical shock.

USE OF ELECTRICAL SHOCK WARNING LABELS

6. Electrical shock warning labels may be used on equipment or in areas where the danger

of electrical shock exists.

17B-1

7. Labels are available as a pressure sensitive decal or a pre_drilled metal plate, in two sizes as follows:

TITLE	NSM NNO	TITRE
DESCRIPTION		DESCRIPTION
Decal, electrical hazard warning(4.25" triangle)	9905-21-876-4286	Décalcomanie d'avertissement de risque électrique (triangle de 4.25 po)
Decal, electrical hazard warning (2.25" triangle)	9905-21-876-4284	Décalcomanie d'avertissement de risque électrique (triangle de 2.25 po)
Plate, electrical hazard warning (4.5" triangle)	9905-21-878-4262	Plaque d'avertissement de risque électrique (triangle de 4.5 po)
Plate, electrical hazard warning (2.5" triangle)	9905-21-878-4263	Plaque d'avertissement de risque électrique (triangle de 2.5 po)

PROCEDURES

- 8 Where a requirement for the use of electrical shock warning labels on equipment exists the life cycle materiel manager of the equipment shall ensure that:
- a. The requirement is valid; and
 - b. In the case of new equipments, appropriate documents are included in the contract demand or form part of the data.

LOCATION

- 9 Labels should be located where they are:
- a. Easy to see when approaching the equipment or area where the possibility of electrical shock exists;
 - b. Not liable to damage during removal or installation of the equipment or its components.

NOTE--Labels should not be affixed to dust covers or other removable covers or enclosures. **INSTALLATION**

10. For pressure sensitive decals, ensure that the surface of the selected location is clean and dry. Irregular surfaces, such as wrinkle finish paint, must be sanded smooth before affixing the decal. Peel off the protective backing and press the decal onto the prepared surface.
11. Metal plates may be affixed using nuts and bolts, screws or rivets as appropriate under the circumstances. Where the metal plate is subject to vibration, care must be taken to ensure the mounting hardware does not vibrate loose and damage the equipment on which it is mounted.
12. All other technical requirements shall be established in conjunction with C-02-006-002/AG-000 Information Markings on Canadian Forces Equipment and the Life Cycle Material Manager (LCMM) for the particular item in question.

**TESTING OF ELECTRICIANS INSULATED GLOVES, MITTS, SLEEVES AND
BLANKETS SAFETY STANDARD (From: A-LM-182-001/JS-001)**

TABLE OF CONTENTS

Section	Title	Page
	Purpose	17C-1
	Application	17C-1
	General	17C-1
	Policy	17C-1
A.	Rubber Gloves and Mitts	17C-2
	B. Rubber Sleeves	17C-2
	C. Rubber Blankets	17C-2
	Special Note	17C-3/17C-4

PURPOSE

1. The purpose of this annex is to promulgate section 3 of chapter 24 of Supplemental Supply Instruction A-LM-182-001/JS-001 as part of the General Safety Standard and to prescribe its implementation in DND and the CF.

APPLICATION

2. This document shall be applied in accordance with pages 17-1 to 17-4 of this chapter.
3. Though military operational commitments are excluded from the scope of this standard, useful elements should, where possible, be incorporated in all applicable orders, directives, and publications.

GENERAL

4. Electricians' gloves, mitts, sleeves and electrical insulating blankets have been designated as local procurement items. Periodic electrical testing shall be carried out locally by a provincially approved testing facility able to meet Canadian Standards Association (CAN/CSA) standards or other provincially authorized standard.

POLICY

5. All electricians' rubber gloves, mitts, sleeves and electrical insulating blankets, whether in service or in storage, are required to undergo periodic testing as a safeguard against accidents. In the interest of safety, the testing frequency shall be as follows.

a Rubber Gloves and Mitts

(LCMM) for the item in question.

C-02-040-009/AG-001
Annex C, Chapter 17

- (1) Gloves and mitts issued to individuals or to a tool kit shall be tested by the worker prior to daily use, using visual and air testing methods in accordance with C-98-016-MIS/TS-001.
- (2) Gloves and mitts issued to individuals or to a tool kit are to be electrically retested as detailed in CAN/CSA Z259.4-M latest issue after four months usage and shall not exceed six months since the last test date. Testing shall be carried out by an approved testing facility. For added personal safety, it is strongly recommended that all type 3 (30,000 volts) gloves and all frequently worn rubber gloves be electrically retested every 60 days.
- (3) Gloves and mitts installed on safety boards shall be electrically retested at least every four months and shall not exceed six months since the last test date.
- (4) Gloves and mitts held in stock or storage longer than four months are to be electrically retested as detailed in CAN/CSA Z259 4-M latest issue prior to being placed in service.
NOTE. Combined in service use and shelf life shall not exceed 6 months.

b Rubber Sleeves

- (1) Sleeves issued to individuals or to a tool kit shall visually inspected by the worker prior to daily use.
- (2) Sleeves issued to individuals or to a tool kit are to be electrically retested as detailed in CAN/CSA Z259.5-M latest issue at least every four months and shall not exceed six months since the last test date. For added personal safety, it is recommended that sleeves used in high voltage situations or frequently used be electrically retested every 60 days.
- (3) Sleeves held in stock or in storage longer than four months are to be electrically retested as detailed in CAN/CSA Z259.5-M latest issue prior to being placed in service. **NOTE: Combined in service and shelf life shall not exceed 6 months.**

c Rubber Blankets

- (1) Blankets issued to individuals or to a tool kit are to be tested prior to installation by the user using visual testing methods in accordance with C-98-016-MIS/TS-001.
- (2) Blankets issued to individuals or to a tool kit are to be laboratory tested every six months by an approved testing facility in accordance with CAN/CSA Z259.6-M latest issue.
- (3) Blankets held in stock or in storage longer than 4 months are to be electrically retested by an approved testing facility in accordance with CAN/CSA Z259.6-M latest issue.
6. Gloves, mitts, sleeves and electrical insulating blankets that have been tested by an approved testing facility must be stamped with the date of testing or the items must be accompanied by an enclosed card stamped with the date of testing.

7. Addition testing information, if required, is available from NDHQ/DACME. Other information on specific items can also be obtained from the Life Cycle Material Manager (LCMM) for the item in question.

SPECIAL NOTE: Insulated gloves are normally worn with protective leather gloves as follows;

Gloves, Leather, Shell, Electrical Worker

size 9 NSN	8415-21-912-9319
size 10 NSN	8415-21-912-9320
size 11 NSN	8415-21-912-9321
size 12 NSN	8415-21-912-9322

CHAPTER 17, ANNEX D

Effective: 01 Jan 2003

ELECTRICAL SAFETY CERTIFICATION AND APPROVAL SAFETY STANDARD

GENERAL

1. The following information is being provided in order to clarify various issues, which arise from time to time, relating to electrical safety certifications and approvals. This material was provided to D Safe G by the subject matter expert (DREP-2).

POLICY

2. It has been, and continues to be, the departmental policy that all equipment and installations, new construction in particular, shall be inspected for safety and applicable electrical codes compliances by Electrical Inspection Authority having jurisdiction. The responsible DND/CF person, e.g. Project Manager, is required to have the inspections done and receive the Electrical Inspection Approval Certificate prior to building occupancy. Please ensure that such inspections are specified and installation approval certificates are received from authorities having jurisdiction.

BACKGROUND

4. C-02-040-009/AG-001, General Safety Program, Volume 2, Safety Standards contains the major Occupational Health and Safety regulatory instruments which have been approved for application throughout DND and CF. Chapter 17 of that publication, which encompasses the legal requirements of Part II, Canada Labour Code, the Canada Occupational Health and Safety Regulations and various Treasury Board regulatory instruments, implies that all installations (equipment, systems and material) shall be certified/approved for safety by an accredited organization.

APPROVED

5. As applied to electrical equipment (device, material, system, installation, assembly, etc.), the term "approved" means that:
 - (a) A certification organization accredited by the 'Standards Council of Canada' has certified such equipment in accordance with the requirements of

(1) CSA standards; or

(2) other recognized documents, where such CSA documents do not exist or are not applicable; or

- (b) Such equipment conforms to the requirements of the regulatory authority.
- 6 Canadian Standards Association, Electrical Safety Authority, Underwriters Laboratories of Canada, Intertek Testing Services and Entela are some of the various accredited organizations that can be contacted for safety certification of equipment not yet approved in Canada. Provincial Hydro (Electrical) Inspection Authorities such as Electrical Safety Authority (for Ontario) are the legal organizations to conduct electrical safety inspections, approve installations and issue Inspection Approval Certificates.
-

OPI's:

Admin OPI: - D Safe G3, National Defence Headquarters, Ottawa, Ontario, K1A0K2
(613) 992-4196 Davis.A@forces.gc.ca

Topic OPI's: - DREP-2, National Defence Headquarters, Ottawa, Ontario, K1A0K2
(613) 995-2556 Rai JS@ADM (IE) DGRPP@Ottawa-Hull

web: http://admie.ottawa-hull.mil.ca/DGRPP/DREP/DREP2_e.htm