



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Réception des soumissions - TPSGC / Bid

Receiving - PWGSC

1550, Avenue d'Estimauville

1550, D'Estimauville Avenue

Québec

Québec

G1J 0C7

INVITATION TO TENDER

APPEL D'OFFRES

**Tender 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.

**Soumission 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 et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

TPSGC/PWGSC

601-1550, Avenue d'Estimauville

Québec

Québec

G1J 0C7

Title - Sujet Fire Protection System MLB (Hangar)	
Solicitation No. - N° de l'invitation F3012-15N288/A	Date 2016-02-05
Client Reference No. - N° de référence du client F3012-15N288	GETS Ref. No. - N° de réf. de SEAG PW-\$QCL-036-16685
File No. - N° de dossier QCL-5-38283 (036)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-02-23	
Time Zone Fuseau horaire Heure Normale du l'Est HNE	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Gagnon, Mathieu	Buyer Id - Id de l'acheteur qcl036
Telephone No. - N° de téléphone (418) 649-2883 ()	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: NGCC MARTHA BLACK MACHINES PÊCHES ET OCÉANS CANADA GARDE COTIÈRE 101 BOUL.CHAMPLAIN QUEBEC Québec G1K 7Y7 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée VOIR DOC	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

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PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation and resulting contract document is divided into seven parts plus annexes as follows:

- Part 1** General Information: provides a general description of the requirement;
- Part 2** Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation and states that the Bidder agrees to be bound by the clauses and conditions contained in all parts of the bid solicitation;
- Part 3** Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4** Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, if applicable, and the basis of selection;
- Part 5** Certifications: includes the certifications to be provided;
- Part 6** Security, Financial and Other Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7** Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Requirement, the Basis of Payment and other annexes.

1.2 Summary

- (i) The requirement is:
- a) to carry out the scope of work regarding the Canadian Coast Guard Ships (C.C.G.S.) Martha L. Black in accordance with the associated Technical Specifications detailed in the Requirement attached as Annex A. The vessel will be moored at Queen's Wharf, Section 94, Canadian Coast Guard base, 101 Champlain Boulevard, Quebec City, QC.
- b) to carry out any approved unscheduled work not covered in paragraph a) Above.
- c) The requirement is exempt from the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), Annex 4 and the North American Free Trade Agreement (NAFTA), Chapter 10 Annex 1001.2b Paragraph 1, however, it is subject to the Agreement on Internal Trade (AIT).

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PART 2 - BIDDER INSTRUCTIONS

2.1 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 (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) 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 (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.2 Submission of Bids

Bids must be submitted by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than **seven (7)** 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.

2.4 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 Quebec.

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.

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2.5 Bidders' Conference (Not mandatory) (Not used)

2.6 Viewing - Vessel (Not used)

2.7 Work Period (onboard the ship)

Work is to commence and be completed as follows:

Delivery of equipment: March 24th, 2016

Start of work: August 11^h, 2016 or as per ship's availability. (At the earlier date.)

End of work: September 23rd, 2016 or six (6) weeks after ship's availability. (At the earlier date.)

The Bidder agrees through submission of its response to the bid solicitation that the above time frame provides an adequate period to perform the subject work and absorb a reasonable amount of unscheduled work; and further, that they have sufficient material and human resources allocated or available to complete the subject work and a reasonable amount of unscheduled work within the Work period.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

- Section I: Management Bid (1 hard copy)
- Section II: Financial Bid (1 hard copy)
- Section III: Certifications Requirements (1 hard copy)

Prices must appear in the financial bid only (Annex I) and Appendix 1 of Annex I. 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.

Section I: Management Bid

The Management Bid should be concise and should include all the certifications and other requirements as noted in Parts 4 and 6.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet Annex I and the Price per Item Sheet, Appendix 1 of Annex "I". The total amount of Goods and Services Tax or Harmonized Sales Tax is to be shown separately, if applicable.

Section III: Certification Requirements

Bidders must submit the certifications required under Part 5.

3.1.2 SACC Manual Clause

C0417T (2008-05-12) Unscheduled Work and Evaluation Price

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**4.1 Evaluation Procedures**

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

4.1.1 Financial Bid

Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet Annex “I” and the Price per Item Sheet, Appendix 1 to Annex “I”. The total amount of Goods and Services Tax or Harmonized Sales Tax is to be shown separately, if applicable.

4.1.2 Mandatory Criteria

Bids will be assessed in accordance with the entire requirement of the bid solicitation including compliance with the mandatory certifications and table of deliverable requirements as detailed in Parts 2, 4, 5 & 6. Only those bids which are found to meet all the mandatory requirements within the specified time frames will be deemed responsive.

4.1.3 Table of Mandatory Requirements to be met by bid closing

Notwithstanding deliverable requirements specified anywhere else within this solicitation and its associated Technical Specification, the following are the only mandatory deliverables that must be submitted with the Bid at the time of bid closing. The following are mandatory and the Bidder must be compliant on each item to be considered responsive

Item	Description	Completed and Attached
1	Completed Annex “I” Financial Bid presentation Sheet	
2	Letter or proof of Insurance as per article 6. 13 of Part 6	

4.1.4 Other information upon request only

The following information, which supports the bid, may be requested by the Contracting Authority from the bidder and it must be provided within **two (2)** working days of the written request:

Item	Description	Completed and Attached
1	Appendix 1 of Annex “I” – Pricing Per Item Sheet.	Prior to contract award
2	Proof of welding certification, as per clause 6.7 of Part 6;	Prior to contract award

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4.1.5 Deliverables after Contract award

Item	Description	Must be supplied after contract award, within
1	Insurance Requirements as per article 7.11, Part 7.	5 calendar days
2	Work schedule and reports as per item 7.16, Part 7.	5 calendar days

4.2 Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

4.2.1 No Substitute Products (Clause B4024T – 2006-08-15)

In Annex A – Technical Specifications, Bidders must provide products that are of the same description, brand name, model and/or part number as detailed in the item description of the bid solicitation. Bidders are advised that substitute products will not be considered.

PART 5 - CERTIFICATIONS

5.1 Generality

Bidders must provide the required certifications and documentation to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default, if any certification made by the Bidder is found to be untrue whether during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with this request will also render the bid non-responsive or will constitute a default under the Contract.

5.2. Mandatory Certifications Required Precedent to Contract Award

5.2.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions [2003](#). The related documentation therein required will assist Canada in confirming that the certifications are true.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](#)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Human Resources and Skills Development Canada \(HRSDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirement *(Not used)*

6.2 Financial Requirements *(Not used)*

6.3 Accommodation *(Not used)*

6.4 Parking *(Not used)*

6.5 Material and Supply Support *(Not used)*

6.6 Workers' Compensation - Letter of Good Standing *(Not used)*

6.7 Welding Certification

At bids closing date the Bidder must submit evidence demonstrating its certification to the welding standards in accordance with the following:

Welding must be undertaken by a company Certified by the Canadian Welding Bureau (CWB) to the requirements of the following Canadian Standards Association (CSA) standards:

- (a) CSA W47.1, Certification of Companies for Fusion Welding of Steel, section 2

6.8 Valid Labour Agreement *(Not used)*

6.9 Work Schedule and Reports *(Not used)*

6.10 Fueling and De-fueling Crown Vessels *(Not used)*

6.11 ISO 9001:2000 - Quality Management Systems *(Not used)*

6.12 Environmental Protection *(Not used)*

6.13 Insurances Requirements

At bids closing date the Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in Annex "C".

PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

1. Requirement

- a) to carry out the docking, maintenance and alterations of the Canadian Coast Guard Ship (C.C.G.S.) Martha L. Black in accordance with the associated Technical Specification attached as Annex A. The vessel will be moored at Queen's Wharf, Section 94, Canadian Coast Guard base, 101 Champlain Boulevard, Quebec City, QC.
- b) to carry out any approved unscheduled work not covered in paragraph a) Above.

2. 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 issued by Public Works and Government Services Canada (PWGSC). The Manual is available on the PWGSC Website:
<http://sacc.pwgsc.gc.ca/sacc/index-e.jsp> .

2.1 General Conditions

2030 (2015-09-03), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract. (With the exception of Article 26 "Responsibility", which is deleted in its entirety and replaced with article 7.42 here below.)

Section 22 "Warranty" of 2030 General Conditions – Higher Complexity is amended in Annex E Warranty.

2.2 Supplemental General Conditions

1029 (2010-08-16) Ship Repairs, excluding section 09 apply to and form part of the Contract.

2.3 Other Clauses and Conditions

B4024T (2006-08-15), No substitute Products;

Bidders must provide products that are of the same description, brand name, model and/or part number as detailed in the item description of the bid solicitation. Bidders are advised that substitute products will not be considered.

3. Security Requirement

There is no security requirement associated with this Statement of Work

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4. Term of Contract

4.1 Contract period

The contract period is from Contract award date until the end of the warranty period inclusively.

4.2 Delivery date

Work is to commence and be completed as follows:

Delivery of equipment: March 24th, 2016

Start of work: August 11th, 2016 or as per ship's availability. (At the earlier date.)

End of work: September 23rd, 2016 or six (6) weeks after ship's availability. (At the earlier date.)

The Contractor agrees that the above time frame provides an adequate period to perform the subject work and absorb a reasonable amount of unscheduled work; and further, that it has sufficient material and human resources allocated or available to complete the subject work and a reasonable amount of unscheduled work within the Work Period.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Mathieu Gagnon
Marine Supply Chief
Public Works and Government Services Canada – Quebec area
Marine division
1550, avenue D'Estimauville, Québec, (Québec) G1J 0C4,
Quebec, Canada
mathieu.gagnon@tpsgc-pwgsc.gc.ca
Phone: (418) 649-2883
Fax: (418) 648-2209

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

The Technical Authority for the Contract is:

Name will be determined at Contract award

Telephone: _____

Facsimile: _____

E-mail address: _____

The Technical Authority 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.

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5.3 Inspection Authority/Inspector

The Inspection Authority for the Contract is:
See section 5.2

The Inspection Authority is the Department of Public Works and Government Services Canada, who for the purposes of this requirement is the inspector responsible for inspection of the work and acceptance of the finished work under this requirement. The Inspection Authority will be represented on-site by a designated inspector and such other Government of Canada inspectors who will from time to time be assigned in support of the designated Inspector.

6. Payment

6.1 Basis of Payment - Firm Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid the firm price indicated in Annex B. Goods and Services Tax or Harmonized Sales Tax is extra, if applicable. Payment for unscheduled work will be done in accordance with Basis of Payment outlined at Annex B.

Canada will not pay the Contractor for any changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.2 Payment Terms - Milestone Payments

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- a. an accurate and complete claim for payment using [PWGSC-TPSGC 1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all the certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives;
- c. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

6.3 SACC Manual Clauses

SACC Manual Clause	C6000C (2011-05-16)	Limitation of Price
SACC Manual Clause	H4500C (2010-01-11)	Lien - Section 427 of the Bank Act

7. Invoicing Instructions

7.1 Invoicing

The Contractor must submit invoices in accordance with the information required in Section 13 of 2030, (2015-09-03), General Conditions - Higher Complexity - Goods

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7.2 Invoice

Invoice to be made to the name of:

DFOinvoicing-MPOfacturation@dfo-mpo.gc.ca

██

Mailing Address
Pêches et Océans Canada
PO Box 1901, STN A
Fredericton (Nouveau-Brunswick)
E3B 5G4

Electronic Copy to be sent for verification to:

mathieu.gagnon@tpsgc-pwgsc.gc.ca

7.3 Warranty Holdback

A warranty holdback of 10% of the total contract price as last amended (applicable taxes excluded) will be applied to the final claim for payment. This holdback will be payable by Canada upon the expiry of the 90 day warranty period(s) applicable to the work. Applicable taxes are to be calculated and paid on the total amount of the claim before the 10% holdback is applied. At the time that the holdback is released, there will be no applicable taxes payable, as it was included in previous payments.

8. Certifications

8.1 Generality

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 entire contract period. 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 _____.

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.

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- (a) the Articles of Agreement;
- (b) the Supplemental General Conditions 1029, (2010-08-16), Ship Repairs;
- (c) General Conditions 2030, (2015-07-03) - Higher Complexity - Goods;
- (d) Annex A, Requirement;
- (e) Annex B, Basis of Payment;
- (f) Annex C, Insurance Requirements;
- (g) Annex D, Inspection/Quality Assurance/Quality Control;
- (h) Annex E, Warranty; and
- (i) the Contractor's bid dated _____ .

11. Insurance Requirements

The Contractor must comply with the insurance requirements specified in Annex C. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements will not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible to decide if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage will be at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within three (3) calendar days after the date of award of the Contract a Certificate of Insurance including details of the insurance coverage, exclusions, deductibles and conditions and confirming that the insurance policy complying with the requirements is in force. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

12. Financial Security *(Not used)*

13. Accommodation *(Not used)*

14. Parking *(Not used)*

15. Sub-contracts and Sub-contractor List

The Contracting Authority is to be notified, in writing, of any changes to the list of subcontractors before commencing the work.

When the Contractor sub-contracts work, a copy of the sub-contract purchase order is to be passed to the Contracting Authority. In addition, the Contractor must monitor progress of sub-contracted work and inform the Inspection Authority on pertinent stages of work to permit inspection when considered necessary the Inspection Authority.

16. Work Schedule and Reports

No later than **five (5)** calendar days after contract award, the preliminary schedule must be revised and expanded as necessary and resubmitted before commencement of the Work.

The Contractor must provide a detailed work schedule showing the commencement and completion dates for the Work in the available work period, including realistic target dates for significant events. During the Work Period the schedule is to be reviewed on an ongoing basis by the Inspection Authority and the Contractor, updated when necessary, and available in the Contractor's office for review by Canada's authorities to determine the progress of the Work.

Production work schedules must be revised and resubmitted before each Progress Meeting. The revised schedules must show the effect of progressed work and approved work arising. Changes in scheduled completion dates due to unscheduled work will not be accepted except as negotiated under Design Change or Additional Work, Article 26.

17. Insulation Materials - Asbestos Free

All materials used to insulate or re-insulate any surfaces on board the vessel must meet Transport Canada Marine standards, for commercial marine work, and, for all work, be free from asbestos in any form. The Contractor must ensure that all machinery and equipment located below or adjacent to surfaces to be re-insulated are adequately covered and protected before removing existing insulation.

18. Loan of Equipment - Marine *(Not used)*

19. Trade Qualifications

The Contractor must use qualified, certificated (if applicable) and competent tradespeople and supervision to ensure a uniform high level of workmanship. The Inspection Authority may request to view and record details of the certification and/or qualifications held by the Contractor's tradespeople. This request should not be unduly exercised but only to ensure qualified tradespeople are on the job.

20. Material and Supply Support *(Not used)*

21. ISO 9001:2000 - Quality Management Systems *(Not used)*

22. Quality Control Plan

The Contractor must implement and follow the Quality Control Plan (QCP) prepared according to the latest issue (at contract date) of ISO 10005 Quality management - Guidelines for quality plans, approved by the Inspection and Technical Authorities. The QCP shall describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of subcontractors. The Contractor must include a traceability matrix from the elements of the specified quality requirements to the corresponding paragraphs in the QCP.

The documents referenced in the QCP shall be made available when requested by the Inspection Authority.

The Contractor must make appropriate amendments to the QCP throughout the term of the contract to reflect current and planned quality activities. Amendments to the QCP must be acceptable to the Inspection and Technical Authorities.

Refer to Annex “D” for further details on the Quality Control Plan requirements.

23. Welding Certification

Welding must only be undertaken by a company Certified by the Canadian Welding Bureau (CWB) to the requirements of the following Canadian Standards Association (CSA) standards:

- (a) CSA W47.1, Certification of Companies for Fusion Welding of Steel, section 2;

In addition, welding must be done in accordance with the requirements of the applicable drawings and specifications.

Before the commencement of any fabrication work, and upon request from the Inspection Authority, the Contractor must provide approved welding procedures and/or a list of welding personnel intended to be used in the completion of the work. The list must identify the CWB welding procedure qualifications attained by each of the personnel listed and must be accompanied by a copy of each person’s current CWB welding certification.

24. Environmental Protection

The Contractor and its sub-contractors engaged in the Work on a Crown vessel must carry out the Work in compliance with applicable municipal, provincial and federal environmental laws, regulations and industry standards.

The Contractor must have detailed procedures and processes for identifying, removing, tracking, storing, transporting and disposing of all potential pollutants and hazardous material encountered, to ensure compliance as required above.

All waste disposal certificates are to be provided to the Inspection Authority, with information copies sent to the Contracting Authority. Furthermore, additional evidence of compliance with municipal, provincial and federal environmental laws and regulations is to be furnished by the Contractor to the Contracting Authority when so requested.

The Contractor must have environmental emergency response plans and/or procedures in place. Contractor and subcontractor employees must have received the appropriate training in emergency preparedness and response. Contractor personnel engaging in activities which may cause environmental impacts or potential noncompliance situations must be competent to do so, on the basis of appropriate education, training, or experience.

25. Fueling and De-fueling a Crown Vessel *(Not used)*

26. Procedure for Design Change or Additional Work

SACC Manual Clause B5007C (2010-01-11) Design Change or Additional Work.

26.1 Price Breakdown:

The Contractor must, upon request, provide a price breakdown for all unscheduled work, by specific activities with trades, person-hours, material, subcontracts and services.

26.2 Pro-rated Prices:

Hours and prices for unscheduled work will be based on comparable historical data applicable to similar work at the same facility, or will be determined by pro-rating the quoted work costs in the Contract when in similar areas of the vessel.

27. Equipment/Systems: Inspection/Test *(Not used)*

28. Inspection and Test Plan *(Not used)*

29. Vessel Custody *(Not used)*

30. Vessel manned Refits

SACC Manual Clause A0032C (2011-05-16) Vessel Manned Refits

31. Pre-Refit Meeting

A Pre-Refit meeting will be convened and chaired by the Contracting Authority before the commencement of the work period.

32. Meetings

Progress meetings, chaired by the Contracting Authority, will take place when required, generally once a month. Interim meetings may also be scheduled. Contractor attendees at these meetings will, as a minimum, be its Contract (Project) Manager, Production Manager (Superintendent) and Quality Assurance Manager. Progress meetings will generally incorporate Technical meetings to be chaired by the Technical Authority.

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33. Outstanding Work and Acceptance

The Inspection Authority, in conjunction with the Contractor, will prepare a list of outstanding work items towards the end of the vessel Work Period. This list will form the annexes to the formal acceptance document for the vessel. A Contract Completion Meeting will be convened by the Inspector on the work completion date to review and sign off the Acceptance Document. In addition to any amount held under the Warranty Holdback Clause, a holdback of twice the estimated value of outstanding work will be held until completion of said work.

The PWGSC-TPSGC 1205 Acceptance Document is to be completed and distribution is to be made by the Public Works and Government Services Canada Inspection Authority as follows:

- (a) original to the PWGSC Contracting Authority
- (b) one copy to the Technical Authority
- (c) one copy to contractor

34. Licensing

The Contractor must obtain and maintain all permits, licenses and certificates of approval required for the work to be performed under any applicable federal, provincial or municipal legislation. The Contractor is responsible for any charges imposed by such legislation or regulations. Upon request, the Contractor must provide a copy of any such permit, license or certificate to Canada.

35. Hazardous Waste - Vessels

SACC Manual Clause A0290C (2008-05-12) Hazardous Waste - Vessels

36. Government Site Regulations

SACC Manual Clause A9068C (2010-01-11) Government Site Regulations

37. Scrap and Waste Material

SACC Manual Clause A9055C (2010-08-16) Scrap and Waste Material

38. Stability and Weight Management *(Not used)*

39. Vessel - Access by Canada *(Not used)*

40. Title to Property - Vessel *(Not used)*

41. Defence Contract

SACC Manual Clause A9006C (2012-07-16) Defence Contract

42. Limitation of Contractor's Liability for Damages to Canada

1. This section applies despite any other provision of the Contract and replaces the section of the general conditions entitled "Liability". Any reference in this section to damages caused by the Contractor also includes damages caused by its employees, as well as its subcontractors, agents, and representatives, and any of their employees.
2. Whether the claim is based in contract, tort, or another cause of action, the Contractor's liability for all damages suffered by Canada caused by the Contractor's performance of or failure to perform the Contract is limited to \$10 million per incident or occurrence to an annual aggregate of \$20 million for losses or damage caused in any one year of carrying out the Contract, each year starting on the date of coming into force of the Contract or its anniversary. This limitation of the Contractor's liability does not apply to nor include:
 - (a) Any infringement of intellectual property rights;
 - (b) Any breach of warranty obligations;
 - (c) Any liability of Canada to a third party arising from any act or omission of the Contractor in performing the Contract; or
 - (d) Any loss for which the policies of insurance specified in the Contract or any other policies of insurance held by the Contractor would provide insurance coverage.
3. Each Party agrees that it is fully liable for any damages that it causes to any third party in connection with the Contract, regardless of whether the third party makes its claim against Canada or the Contractor. If Canada is required, as a result of joint and several liability, to pay a third party in respect of damages caused by the Contractor, the Contractor must reimburse Canada for that amount.
4. The Parties agree that nothing herein is intended to limit any insurable interest of the Contractor nor to limit the amounts otherwise recoverable under any insurance policy. The Parties agree that to the extent that the insurance coverage required to be maintained by the Contractor under this Contract or any additional insurance coverage maintained by the Contractor, whichever is greater, is more than the limitations of liability described in sub article (2), the limitations provided herein are increased accordingly and the Contractor shall be liable for the higher amount to the full extent of the insurance proceeds recovered.
5. If, at any time, the total cumulative liability of the Contractor for losses or damage suffered by Canada caused by the Contractor's performance of or failure to perform the Contract, excluding liability described under subsection 2(a), (b), (c) and (d) exceeds \$40 million, either Party may terminate the Contract by giving notice in writing to the other Party and neither Party will make any claim against the other for damages, costs, expected profits or any other such loss arising out of the termination. However, no such termination or expiry of the Contract shall reduce or terminate any of the liabilities that have accrued to the effective date of the termination but which liabilities are subject to the limitations as specified in sub-article (1) through (4) above.

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6. The date of termination pursuant to this Article, shall be the date specified by Canada in its notice to terminate, or, if the Contractor exercises the right to terminate, in a notice to the Contractor from Canada in response to the Contractor's notice to terminate. The date of termination shall be in Canada's discretion to a maximum of 12 months after service of the original notice to terminate served by either Party pursuant to sub-article 5, above.
7. In the event of a termination under this Article, the Contract will automatically remain in force subject to all of the same terms and conditions until the date of termination and the Contractor agrees that it will be paid in accordance with the applicable provisions as set out in the Basis of Payment, Annex B and that the Contractor's liability remains as specified in sub articles (1) through (4), above.
8. Nothing shall limit Canada's other remedies, including Canada's right to terminate the Contract for default for breach by the Contractor of any of its obligations under this Contract, notwithstanding that the Contractor may have reached any limitation of its liability hereunder.

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ANNEX A

REQUIREMENT

See electronic Annex.

ANNEX B – BASIS OF PAYMENT FIRM PRICE

Annex B will form the Basis of Payment for the resulting contract and should not be filled in at the bid submission stage. Refer to Annex “I” “Financial Bid Presentation Sheet” and Appendix 1 of Annex “I”.

B1 Contract Firm Price

A)	Known Work For work as stated in Contract Clause 1a), Specified in Annex “A” and detailed in the Price per Item Sheet, Appendix 1 of Annex 1, for a FIRM PRICE of:	\$ _____
B)	Applicable taxes of _____ % :	\$ _____
C)	Total Firm Price:	\$ _____

B2 Unscheduled Work

Payment for Unscheduled Work:

The Contractor will be paid for unscheduled work arising, as authorized by Canada. The authorized unscheduled work will be calculated as follows:

Number of hours (to be negotiated) X \$_____, being the Contractor’s firm hourly charge-out labour rate which includes overhead and profit, plus net laid-down cost of materials to which will be added a mark-up of 10 percent, plus Goods and Services Tax or Harmonized Sales Tax, if applicable, calculated at 5 percent of the total cost of material and labour. The firm hourly charge-out labour rate and the material mark-up will remain firm for the term of the Contract and any subsequent amendments.

B2.1: Notwithstanding definitions or usage elsewhere in this document, or in the Bidder’s Cost Management System, when negotiating *Hours* for unscheduled work, PWGSC will consider only those hours of labour directly involved in the production of the subject work package. Elements of *Related Labour Costs* identified in B2.2 below, will not be negotiated, but will be included in the firm hourly Charge-out Labour Rate in accordance with paragraph B2.2

B2.2: Allowance for *Related Labour Costs* such as: Management, Direct Supervision, Purchasing and Material Handling, Quality Assurance and Reporting, First Aid, Gas Free Inspecting and Reporting, and Estimating will be included as *Overhead* within the *firm hourly Charge-out Labour Rate* entered in line B2 above.

B2.3: The 10% mark-up rate for materials will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Chargeout Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

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B3 Overtime

No overtime work shall be compensated for under the Contract unless authorized in advance and in writing by the Contracting Authority. Any request for payment must be accompanied by a copy of the overtime authorization and a report containing such details as Canada may require with respect to the overtime work performed. Compensation for authorized overtime will be calculated in the following manner:

- a. For Known Work, the Contractor will be paid the original contract price plus agreed overtime hours paid at the following premium rates; or,
- b. For Unscheduled Work, the Contractor will be paid for agreed overtime hours paid at the firm hourly Charge-out Labour Rate above plus the following premium rates:

Premium for Time and one half: \$ _____ per hour; or,

Premium for Double time: \$ _____ per hour

The above premiums rates shall be calculated as follows:

Premium for time and one half:

$\frac{1}{2}$ (that portion of the firm Hourly Charge-out Labour Rate in B2 that is directly attributable to salary cost plus related certified fringe benefits) times 7.5% (representing profit)

Premium for double time:

$\frac{1}{2}$ (that portion of the Unscheduled Work firm Charge-out Labour Rate in B2 that is directly attributable to salary cost plus related certified fringe benefits) times 7.5% (representing profit)

These premiums will remain firm for the duration of the Contract, including all amendments and are subject to audit by Canada, and to retroactive adjustment if Canada discovers that the premiums have not been calculated in accordance with the formulae, above.

ANNEX C

INSURANCE REQUIREMENTS

C.1 Ship Repairers' Liability Insurance

1. The Contractor must obtain Ship Repairer's Liability Insurance and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$10,000,000 per accident or occurrence and in the annual aggregate
2. The Ship Repairer's Liability insurance must include the following:
 - (a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.
 - (b) waiver of subrogation rights: Contractor's insurer to waive all rights of subrogation against Canada as represented by the Department of Public Works and Government Services Canada and the Canadian Coast Guard for any and all loss of or damage to the vessel, however caused.
 - (c) Notice of Cancellation: The Insurer will endeavor to provide the Contracting Authority thirty (30) days written notice of cancellation.
 - (d) Contractual Liability: The policy must, on a blanket basis or by specific reference to the contract, extend to assumed liabilities with respect to contractual provisions.
 - (e) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

C.2 Commercial General Liability Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$10,000,000 per accident or occurrence and in the annual aggregate
2. The Commercial General Liability Insurance policy must include the following:
 - (a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
 - (b) Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.

- (c) Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
- (d) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
- (e) Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
- (f) Employees and, if applicable, Volunteers must be included as Additional Insured.
- (g) Employers' Liability: to protect the Contractor for liabilities arising in the management and administration of statutory and contractual entitlements of its employees.
- (h) Notice of Cancellation: The Insurer agrees to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
- (i) If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
- (j) Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
- (k) Sudden and accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.

ANNEX D

INSPECTION/QUALITY ASSURANCE/QUALITY CONTROL

D.1 Inspection and Test Plan (ITP):

1. The Contractor must prepare an Inspection and Test Plan (ITP) comprising individual inspection and test plans for each specification item of this project, in accordance with the Quality Standard and its Quality Control Plan. The ITP must be submitted to the Inspection Authority for review and amended by the Contractor to the satisfaction of the Inspection Authority.

- (a) Each ITP must contain all inspection points identified in the Technical Specification highlighting any mandatory points that must be witnessed by the Inspection Authority and other "hold" points imposed by the Contractor to ensure the quality of the work.
- (b) Milestone delivery date for the ITP is given in the Contract, however individual ITPs should be forwarded for review as developed.

2. Coding:

(a) Each Inspection and Test Plan (ITP) is to be coded for identification clearly demonstrating a systematic approach similar to the following (Contractor's system should be defined in its Quality Control Plan):

(i) Prefixes for Inspections, Test and Trials:

Prefix "1" is a Contractor inspection, i.e. 1H-10-01, 1H-10-02;

prefix "2" is a Contractor post repair test, i.e. 2H-10-01; and

prefix "3" is a Contractor post repair trial, i.e. 3H-10-01.

(b) Specification items followed by assigned sequence numbers for inspection processes within each Specification Item; and

(c) Cross reference to a verification document number

3. Inspection and Test Plan Criteria:

Inspection criteria, procedures and requirements are stated in the specifications, drawings, technical orders and reference standards invoked by the Specifications. Test and trial documentation may also be included or referenced in the Specifications. An individual Inspection and Test Plan (ITP) is required for each Specification item.

(a) All ITPs must be prepared by the Contractor in accordance with the above criteria, its Quality Plan, and must provide the following reference information:

- (i) the ship's name;
- (ii) the Specification item number;
- (iii) equipment/system description and a statement defining the parameter which is being inspected;

- (iv) a list of applicable documents referenced or specified in the inspection procedure;
- (v) the inspection, test or trial requirements specified in the Technical Specification;
- (vi) the tools and equipment required to accomplish the inspection;
- (vii) the environmental conditions under which the inspections are to be conducted and the tolerances on the inspection conditions;
- (viii) a detailed step-by step procedure of how each inspection is to be performed, conformance parameters, accept/reject criteria and recording of results, deficiencies found and description of corrective action(s) required;
- (ix) name and signature of the person who prepared the plan, date prepared and amendment level; and,
- (x) names and signatures of the persons conducting and witnessing the inspection, test or trial.

4. Contractor Imposed Testing:

Tests and trials in addition to those given in the Technical Specification must be approved by the Inspection Authority.

- (a) Amendments: Amendment action for the Inspection and Test Plans must be ongoing throughout the refit and reflect the inspection requirements for unscheduled work. Amendments must be submitted as developed, but not less frequently than once every second week.

D.2 Conduct of Inspection

1. Inspections must be conducted in accordance with the ITP.
2. The Contractor must provide its own staff or subcontracted staff to conduct inspections, tests and trials; excepting that Technical Authority or Inspection Authority personnel may be designated in the specifications, in which case the Contractor must ensure that its own staff are provided in support of such inspection/test/trial.
3. The Contractor must ensure that the required conditions stated in the ITP prevail at the commencement of, and for the duration of, each inspection/test/trial.
4. The Contractor must ensure that personnel required for equipment operation and records taking during the inspection/test/trial are briefed and available at the start and throughout the duration of the inspection/test/trial. Tradesmen or FSRs who may be required to effect minor changes or adjustments in the installation must be available at short notice.
5. The Contractor is to coordinate the activities of all personnel taking part in each inspection/test/trial and ensure that safe conditions prevail throughout the inspection/test/trial.

D.3 Inspection Records and Reports

1. The Contractor on the inspection record, test or trials sheets as applicable must record the results of each inspection. The Contractor must maintain files of completed inspection records consistent with the Quality Standard and its Quality Plan for this project.

2. The Contractor's QC representative (and the FSR when required) must sign as having witnessed the inspection, test or trial on the inspection record. The Contractor must forward originals of completed inspection records, together with completed test(s) and/or trials sheets to the Inspection Authority as they are completed.
3. Unsatisfactory inspection/test/trial results, for which corrective action cannot be completed during the normal course of the inspection/test/trial, will require the Contractor to establish and record the cause of the unsatisfactory condition to the satisfaction of the Inspection Authority. Canada representatives may assist in identification where appropriate.
4. Corrective action to remove cause of unsatisfactory inspections must be submitted to the Inspection Authority in writing by the Contractor, for approval before affecting such repairs and rescheduling of the unsatisfactory inspection/test/trial. Such notices must be included in the final records passed to the Inspection Authority.
5. The Contractor must undertake rectification of defects and deficiencies in the Contractor's installation or repair as soon as practicable. The Contractor is responsible to schedule such repairs at its own risk.
6. The Contractor must reschedule unsatisfactory inspections after any required repairs have been completed.
7. Quality Control, Inspection and Test records that substantiate conformance to the specified requirements, including records of corrective actions, must be retained by the Contractor for three (3) years from the date of completion or termination of the Contract and must be made available to the Inspection Authority upon request.

D.4 Inspection and Trials Process

1. Drawings and Purchase Orders
 - (a) Upon receipt of two (2) copies of each drawing or purchase order, the designated Inspection Authority will review its content against the provisions of the Specifications. Where discrepancies are noted, the Inspection Authority will formally advise all concerned, in writing using a Discrepancy Notice. The resolution of any such discrepancy is a matter for consultation between the Contractor and other Crown Authorities.

The Inspection Authority is NOT responsible for the resolution of discrepancies.

2. Inspection
 - (a) Upon receipt and acceptance of the Contractor's ITP, inspection will consist of a number of Inspection Points supplemented by such other inspections, tests, demonstrations and trials as may be deemed necessary by the Inspection Authority to permit him to certify that the work has been performed in compliance with the provisions of the Specifications. The Contractor must be responsible for notifying the designated Inspection Authority of when the work will be available for inspection, sufficiently in advance to permit the designated Inspection Authority to arrange for the appropriate inspection.

- (b) The Inspection Authority will inspect the materials, equipment and work throughout the project against the provisions of the Technical Specification and, where non-conformances are noted, will issue appropriate **INSPECTION NON-CONFORMANCE REPORTS**.
 - (c) The Contract requires the implementation of a Quality Assurance/Quality Control system, so the Inspection authority must require that the Contractor provide a copy of its internal inspection report pertaining to a work item before conducting the requested inspection. If third party inspections are required by the Contract (e.g. inspections by a certified CWB 178.2 welding inspector), the reports of these inspections must be required before the Work is inspected by the Inspection Authority.
 - (d) The QA/QC system is a requirement, so if the documentation is presented to the Inspection Authority before an inspection stating that the Work is satisfactory but the Inspection Authority finds that the Work has not been satisfactorily inspected, the Inspection Authority must issue an Inspection Non-conformance Report against the Work and another against the failure of the Contractor's QA/QC system.
 - (e) Before carrying out any inspection, the Inspection Authority must review the requirements for the Work and the acceptance and/or rejection standards to be applied. Where more than one standard or requirement is called up and they are potentially conflicting, the Inspection Authority must refer to the order of precedence in the Contract to determine the standard or requirement to be applied.
3. Inspection Non-conformance report
- (a) An Inspection Non-conformance report will be issued for each non-conformance noted by the Inspection Authority. Each report will be uniquely numbered for reference purposes, will be signed and dated by the Inspection Authority, and will describe the non-conformance.
 - (b) When the non-conformance has been corrected by the Contractor and has been re-inspected and accepted by the Inspection Authority, the Inspection Authority will complete the Report by adding an applicable signed and dated notation.
 - (c) At the end of the project, the content of all Inspection Non-conformance Reports which have not been signed-off by the Inspection Authority will be transferred to the Acceptance Documents before the Inspection Authority's certification of such documents.
4. Tests, Trials, and Demonstrations
- (a) To enable the Inspection Authority to certify that the Work has been performed satisfactorily, in accordance with the Contract and Specifications, the Contractor must schedule, co-ordinate, perform, and record all specified Tests, Trials and Demonstrations required by the Inspection Authority.
 - (b) Where the Specifications contain a specific performance requirement for any component, equipment, sub-system or system, the Contractor must test such component, equipment, sub-system or system to the satisfaction of the Inspection Authority, to prove that the specified performance has been achieved and that the component, equipment, sub-system or system performs as required by the specifications.
 - (c) Tests, trials and demonstrations must be conducted in accordance with a logical, systematic schedule which must ensure that all associated components and equipment are proven before sub-systems demonstration or testing, and that sub-systems are proven before system demonstration or testing.

- (d) Where the Specifications do not contain specific performance requirements for any component, equipment, sub-system or system, the Contractor must demonstrate such component, equipment, sub-system or system to the satisfaction of the Inspection Authority.
- (e) The contractor must submit its Test and Inspection Plan as indicated in section D.1 above.
- (f) The Contractor must co-ordinate each test, trial and demonstration with all interested parties, including the Inspection Authority; Contracting and Technical Authorities; regulatory authorities; Classification Society; Sub-contractors; etc. The Contractor must provide the Inspection Authority and other Crown Authorities with a minimum of five working days notice of each scheduled test, trial, or demonstration.
- (g) The Contractor must keep written records of all tests, trials, and demonstrations conducted.
- (h) The Contractor must in all respects be responsible for the conduct of all tests and trials in accordance with the requirements of the Contract.
- (i) The Inspection Authority and the Technical Authority reserve the right to defer starting or continuing with any sea trials for any reasonable cause including but not limited to adverse weather, visibility, equipment failure or degradation, lack of qualified personnel and inadequate compliance with safety standards.

ANNEX E

WARRANTY

2030 (2015-09-03) General Conditions Higher Complexity Goods are hereby amended, by deleting section 2030 22 (2014-09-25), Warranty and replacing it as follows:

E.1 Section 22 Warranty

1. At the discretion of the Minister, the Contractor will replace or make good at its own expense any finished work, excluding Government Issue incorporated therein, which becomes defective or which fails to conform to contract requirements as a result of faulty or inefficient manufacture, material or workmanship.
2. Notwithstanding prior acceptance of the finished work, and without restricting any other term of the Contract or any condition, warranty or provision implied or imposed by law, the Contractor hereby warrants that the following shall be free from all defects and shall conform with the requirements of the contract:
 - (a) The painting of the underwater portion of the hull for a period of three hundred and sixty-five (365) days commencing from the date of undocking, except that the Contractor will only be liable to repair and/or replace to a value to be determined as follows:

Original cost to Canada of the underwater painting Work, divided by three hundred and sixty-five (365) days and multiplied by the number of days remaining in the warranty period. The resultant would represent the "Dollar Credit" due to Canada from the Contractor.
 - (b) All other painting Work for a period of three hundred and sixty-five (365) days commencing from the date of acceptance of the Work;
 - (c) all parts and material provided by the Contractor for a period of three hundred and sixty-five (365) days commencing from the date of acceptance of such parts or material;
 - (d) All other items of Work for a period of ninety (90) days commencing from the date of acceptance of the Work, except that:
 - (i) the warranty on the Work related to any system or equipment not immediately placed in continuous use or service shall extend for a period of ninety (90) days from the date of acceptance of the vessel;
 - ii) for all outstanding defects, deviations, and Work items listed on the Acceptance Document at Delivery, the Warranty will be ninety (90) days from the subsequent date of acceptance for each item.
3. If more than one warranty period applies, in accordance with the above, to any Work, then the warranty shall be for the longest period.
4. The Contractor agrees to pass to Canada, and exercise on behalf of Canada, all warranties on the Materials supplied or held by the Contractor which exceed the periods indicated above.

E.2 Warranty Procedures

E2.1 Scope

- (a) The following are the procedures which suit the particular requirements for warranty considerations for a vessel on completion of a refit.

E2.2 Definition

- (a) There are a number of definitions of "warranty" most of which are intended to describe its force and effect in law. One such definition is offered as follows:

"A warranty is an agreement whereby the vendor's or manufacturer's responsibility for performance of its product is extended for a specific period of time beyond the date at which the title to the product passes to the buyer."

E2.3 Warranty Conditions

- (a) General Conditions 2030, Higher Complexity - Goods are augmented by clauses incorporated into the subject Contract.
- (b) The warranty periods may be stated in more than one part.
 - (i) 90 days commencing from the day the PWGSC 1205 Acceptance Document is signed for workmanship provided by the contractor for the refit work specified;
 - (ii) 365 days from the date of undocking the vessel for the specified areas of underwater paint and topside painting;
 - (iii) 365 days commencing from the day the PWGSC 1205 Acceptance Document is signed for parts and material provided by the contractor for the refit work specified;
 - (iv) Any other specific warranty periods that may be required in the contract or offered by the Contractor.
- (c) The foregoing does not cover the disposition of other deficiencies that will be directly related to Technical Authority problem areas of the following nature:
 - (i) items becoming unserviceable that were not included in the refit specification;
 - (ii) refit specifications or other related documentation requiring amendments or corrections to increase viability; and
 - (iii) work performed that is directly related to the Technical Authority.

E2.4 Reporting Failures with Warranty Potential

- (a) The initial purpose of a report of a failure is to facilitate the decision as to whether or not to involve warranty and to generate action to effect repairs. Therefore in addition to identification, location data, etc. the report must contain details of the defect. Warranty decisions as a general rule are to be made locally and the administrative process is to be in accordance with procedures as indicated.
- (b) These procedures are necessary as invoking a warranty does not simply mean that the warrantor will automatically proceed with repairs at his expense. A review of the defect may well result in a disclaimer of responsibility, therefore, it is imperative that during such a review the Department is directly represented by competent technical authority qualified to agree or disagree with the warrantor's assertions.

E2.5 Procedures

- (a) Immediately it becomes known to the Ship's Staff that an equipment/system is performing below accepted standards or has become defective, the procedures for the investigation and reporting are as follows:
- (i) The vessel advises the Technical Authority when a defect, which is considered to be directly associated the refit work, has occurred.
 - (ii) On review of the Specification and the Acceptance Document, the Technical Authority in consort with Ship's Staff is to complete the Tombstone Data and section 1 of the Warranty Claim Form and forward the original to the Contractor for review with a copy to the PWGSC Contracting Authority. If the PWGSC Contracting or Inspection Authority is unable to support warranty action, the Defect Claim Form will be returned to the originator with a brief justification. (It is to be noted that in the latter instance PWGSC will inform the Contractor of its decision and no further action will be required of the Contractor.

Warranty defect claims may be forwarded in hard copy, by fax or by e-mail whichever format is the most convenient.

- (iii) Assuming the Contractor accepts full responsibility for repair, the Contractor completes Section 2 and 3 of the Warranty Claim Form, returns it to the Inspection Authority who confirms corrective action has been completed, and who then distributes the form to the Technical Authority and the PWGSC Contracting Authority.
- (b) In the event that the Contractor disputes the claim as a warranty defect, or agrees to share, the contractor is to complete Part 2 of the Warranty Claim Form with the appropriate information and forward it to the Contracting Authority who will distribute copies as necessary.
- (c) When a warranty defect claim is disputed by the Contractor, the Technical Authority may arrange to correct the defect by in-house resources or by contracting the work out. All associated costs must be tracked and recorded as a possible charge against the contractor by PWGSC action. Material costs and manhours expended in correcting the defect are to be recorded and entered in Section 5 of the warranty defect claim by the Technical Authority who will forward the warranty defect claim to the PWGSC Contracting Authority for action. Defective parts of equipment are to be retained pending settlement of claim.
- (d) Defective equipment associated with potential warranty should not normally be dismantled until the contractor's representative has had the opportunity to observe the defect. The necessary work is to be undertaken through normal repair methods and costs must be segregated as a possible charge against a contractor by PWGSC action.

E2.6 Liability

- (a) Agreement between the Contracting Authority, Inspection Authority, Technical Authority and the Contractor will result in one of the following conditions:
- (i) The contractor accepts full responsibility for costs to repair or overhaul under the warranty provisions of the contract;
 - (ii) The Technical Authority accepts full responsibility for repair and overhaul of item concerned; or
 - (iii) The Contractor and the Technical Authority agree to share responsibility for the costs to repair or overhaul the unserviceable item, in such cases the PWGSC Contracting Authority will negotiate the best possible sharing arrangement.
- (b) In the event of a disagreement as in paragraph 5c, PWGSC will take necessary action with the contractor while the Technical Authority informs its Senior Management including pertinent data and recommendations.
- (c) The total cost of processing warranty claims must include accommodation and travel costs of the contractor's employees as well as equipment/system down time and operational constraints. Accordingly, the cost to remediate the defect, in manhours and material, will be discussed between the Contracting/Inspection Authorities and the Technical Authority to determine the best course of action.

E2.7 Alongside Period For Warranty Repairs and Checks

- (a) If at all possible, an alongside period for the vessel is to be arranged just before the expiration of the 90 day warranty period. This alongside period is to provide time for warranty repair and check by the contractor.
- (b) In respect to the underwater paint, should it become defective during the associated warranty period the contractor is only liable to repair to a value determined as follows:

"Original cost to Canada for painting and preservation of the underwater section of the hull, divided by three hundred and sixty-five (365) days days and multiplied by the number of days remaining in the three hundred and sixty-five (365) days day warranty period. The resultant would represent the 'Dollar Credit' due to Canada from the Contractor."

- (c) The Underwater paint system, before expiration of the warranty, should be checked by divers. The Technical Authority, is to arrange the inspection and inform the Contracting Authority of any adverse results.

Solicitation No – N° de l’invitation
F3012-15N288/A
Client Ref No. – N° de réf. du client
F3012-15N288

Amd. No. – N° de la modif.
File No. – N° du dossier
QCL-5-38283

Buyer ID – id de l’acheteur
qcl 036

Appendix 1 of Annexe E



Public Works and Government
Services Canada

Travaux publics et Services
gouvernementaux Canada

**Warranty Claim
Réclamation De Garantie**

Vessel Name – Nom de navire	File No. – N° de dossier	Contract No. - N ° de contrat
Customer Department – Ministère client		Warranty Claim Serial No. Numéro de série de réclamation de garantie
Contractor – Entrepreneur		<u>Effect on Vessel Operations</u> <u>Effet sur des opérations de navire</u> Critical Degraded Operational Non-operational Critique Dégradé Opérationnel Non-opérationnel

1. Description of Complaint – Description de plainte

Contact Information – l’information de contact

Name – Nom Tel. No. - N ° Tél

Signature – Signature Date

2. Contractor’s Investigative Report – Le rapport investigateur de l’entrepreneur

Solicitation No – N° de l'invitation
F3012-15N288/A
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QCL-5-38283

Buyer ID – id de l'acheteur
qcl 036

3. Contractor's Corrective Action – La modalité de reprise de l'entrepreneur

Contractor's Name and Signature – Nom et signature de l'entrepreneur

Date of Corrective Action - Date de modalité de reprise

Client Name and Signature - Nom et signature de client

Date

4. PWGSC Review of Warranty Claim Action – Examen d'action de réclamation de garantie par TPSGC

Signature – Signature

Date

Solicitation No – N° de l'invitation
F3012-15N288/A
Client Ref No. – N° de réf. du client
F3012-15N288

Amd. No. – N° de la modif.
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QCL-5-38283

Buyer ID – id de l'acheteur
qcl 036

ANNEX F

VESSEL CUSTODY

(NOT USED)

Solicitation No – N° de l'invitation
F3012-15N288/A
Client Ref No. – N° de réf. du client
F3012-15N288

Amd. No. – N° de la modif.
File No. – N° du dossier
QCL-5-38283

Buyer ID – id de l'acheteur
qcl 036

ANNEX G

SECURITY REQUIREMENTS CHECK LIST

(NOT USED)

Solicitation No – N° de l'invitation
F3012-15N288/A
Client Ref No. – N° de réf. du client
F3012-15N288

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File No. – N° du dossier
QCL-5-38283

Buyer ID – id de l'acheteur
qcl 036

ANNEX H

(NOT USED)

ANNEX I

FINANCIAL BID PRESENTATION SHEET

I1 Price for Evaluation

A)	Known Work (including optional work) For work as stated in Part 1 Clause 2a, Specified in Annex “A” for a FIRM PRICE of:	\$
B)	Unscheduled Work Contractor <i>Labour Cost</i> : Estimated labour hours at a firm <i>hourly Charge-out Labour Rate</i> , including overhead and profit for evaluation purpose only: 250 person hours X \$ _____ per hour for a PRICE of: See Note I2.1 and I2.2 below.	\$
C)	EVALUATION PRICE GST Excluded, [A + B]: For an EVALUATION PRICE of :	\$

I2 Unscheduled Work

The Contractor will be paid for unscheduled work arising, as authorized by the Minister, calculated in the following manner:

"Number of hours (to be negotiated) X \$ _____ your firm hourly *Charge-out Labour Rate* which includes *Overhead* and profit, plus net laid-down cost of materials to which shall be added a 10% mark-up, plus Goods and Services Tax or Harmonized Sales Tax as applicable, of the total cost of material and labour. The firm hourly *Charge-out Labour Rate* and the material mark-up will remain firm for the duration of the Contract and any subsequent amendments thereto."

I2.1: Notwithstanding definitions or usage elsewhere in this document, or in the Bidder’s Cost Management System, when negotiating *Hours* for unscheduled work, PWGSC will consider only those hours of labour directly involved in the production of the subject work package.

Elements of Related Labour Costs identified in I2.2 below, will not be negotiated, but will be compensated for in accordance with paragraph I2.2 It is therefore incumbent upon the Bidder to enter values in the above table which will result in fair compensation, regardless of the structure of their Cost Management System.

I2.2: Allowance for *Related Labour Costs* such as: Management, Direct Supervision, Purchasing and Material Handling, Quality Assurance and Reporting, First Aid, Gas Free Inspecting and Reporting, and Estimating will be included as *Overhead* for the purposes of determining the *Charge-out Labour Rate* entered in line I2 above.

I2.3: The 10% mark-up rate for materials will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the *Chargeout Labour Rate*. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

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F3012-15N288/A
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QCL-5-38283

Buyer ID – id de l'acheteur
qcl 036

I3 Overtime

No overtime work shall be compensated for under the Contract unless authorized in advance and in writing by the Contracting Authority. Any request for payment must be accompanied by a copy of the overtime authorization and a report containing such details as Canada may require with respect to the overtime work performed. Compensation for authorized overtime will be calculated in the following manner:

- a. For Known Work, the Contractor will be paid the original contract price plus agreed overtime hours paid at the following premium rates; or,
- b. For Unscheduled Work, the Contractor will be paid for agreed overtime hours paid at the firm hourly Charge-out Labour Rate above plus the following premium rates:

Premium for Time and one half: \$ _____ per hour; or,

Premium for Double time: \$ _____ per hour

The above premiums rates shall be calculated as follows:

Premium for time and one half:

$\frac{1}{2}$ (that portion of the firm Hourly Charge-out Labour Rate in B2 that is directly attributable to salary cost plus related certified fringe benefits) times 7.5% (representing profit)

Premium for double time:

$\frac{1}{2}$ (that portion of the Unscheduled Work firm Charge-out Labour Rate in I2 that is directly attributable to salary cost plus related certified fringe benefits) times 7.5% (representing profit)

These premiums will remain firm for the duration of the Contract, including all amendments and are subject to audit by Canada, and to retroactive adjustment if Canada discovers that the premiums have not been calculated in accordance with the formulae, above.

APPENDIX 1 OF ANNEXE I

PRICE PER ITEM SHEETS		
Item	Description – A) SCHEDULED WORK	Fixed Price
1	Mobilisation / Demobilisation and other work not mentioned below.	\$ _____
2	Supply of on (1) new “FIRE COMBAT, Model 13028, 450 PKP/100AFFF, twin agent” System.	\$ _____
3	Supply of one (1) new “MINUTE MAN II, Model 150/603” foam System	\$ _____
4	Dismantling, removal and disposal of the existing systems Mobilisation / Demobilisation = \$ _____ Subcontracting = \$ _____ Material, equipment & consumables = \$ _____ Labour; \$ _____/hour X _____ hours = \$ _____ Total for this item = \$ _____	\$ _____
5	Installation the new “FIRE COMBAT, Model 13028, 450 PKP/100AFFF, twin agent” et “MINUTE MAN II, Model 150/603” Systems. Mobilisation / Demobilisation = \$ _____ Subcontracting = \$ _____ Material, equipment & consumables = \$ _____ Labour; \$ _____/hour X _____ hours = \$ _____ Total for this item = \$ _____	\$ _____
6	Supply and install the connecting pipe (Between the water supply piping and the Minute Man unit) Material, equipment & consumables = \$ _____ Labour; \$ _____/hour X _____ hours = \$ _____ Total for this item = \$ _____	\$ _____
7	Commissioning, training and tests Mobilisation / Demobilisation = \$ _____ Subcontracting = \$ _____ Material, equipment & consumables = \$ _____ Labour; \$ _____/hour X _____ hours = \$ _____ Total for this item = \$ _____	\$ _____
8	Other Deliverables Certificates of both fire protection systems = \$ _____ French and English operation and maintenance manuals of both systems = \$ _____ Provide 200 liters of foam for Minute Man system = \$ _____ Total for this item = \$ _____	\$ _____
A) SCHEDULED WORK - TOTAL FIRM PRICE		\$ _____

Remark to Bidders:

Canada may reject the bid if any of the prices submitted do not reasonably reflect the cost of performing the part of the work to which that price applies.

SYSTEM REPLACEMENT OF FIXED EXTINGUISHING FOAM BY A COMBINED SYSTEM
"FIRE COMBAT" AND "MINUTE MAN II"

F3012-15IN288

The purpose of this description is to detail the procedure to remove the existing fixed extinguishing foam system and replace it with a system comprising modular systems "FIRE COMBAT, Model 13028, 450 PKP / 100AFF, twin agent" and a foam "MINUTE MAN II, Model 150/603."

The contractor will:

- Drain, collect and dispose the "FP70 Plus Angus Fluoroprotein" foam according to recognized provincial environmental actual standards, foam contained in the two tanks and in the piping system to be dismantled, 1000 liters total.
- Note that the supply pressure in the fire main will have been drop from the section related to the fixed foam extinguishing system.
- The vessel crane and CCG harbour crane will be available to load/unload the equipment.
- The Contractor shall dismantle, remove and dispose the following items:
 - The two foam tanks with a capacity of 500 liters each.
 - All foam piping, foam-water mixture and water supply included in the hangar.
 - Foam nozzles broadcasters will be given to the ship's chief engineer.
 - Remove and grind at the deck all attachment points for the tanks and piping that are no longer needed, prepare and prime the work area grinded to bare steel.
- Install the two new systems that are fabricated in a modular way, and by fitting welded bracket points to the bridge and bolt the modules with the bracket.
 - Be sure to keep throughout the welding working hours and for a period of thirty minutes after the end of this work, a firefighter / supervisor / fire watch in places where welding work will be and the compartments below.
- Supply and install the new piping between the water supply piping and the Minute Man unit.
 - This will be mild steel 2" pipe, schedule 80, with 150 psi welded flanges and fitting, installed on the front wall of the hangar according to the sketch provided.
 - This piping will be fixed to the wall by brackets welded to the wall, then routed as directly as possible (2" dia. 20' piping section to be included) is needed to Minute Man system supplying water.

SYSTEM REPLACEMENT OF FIXED EXTINGUISHING FOAM BY A COMBINED SYSTEM
"FIRE COMBAT" AND "MINUTE MAN II"

F3012-15IN288

Commissioning, training and tests:

- After the work, the contractor assisted by a manufacturer's representative proceed with the commissioning and hydrostatic sealing tests (pressure of 150 psi of water for 30 minutes), allow 4 hours with a FSR for commissioning and testing;
- After the trial period proceed with commissioning as representative directives for both systems.
- Perform a 4 hour training for crew members (4 people) on the use of systems and their maintenance, with the FSR.

Other Deliverables:

- Provide certificates of both fire protection systems;
- Provide French and English manuals of operation and maintenance of both systems;
- Provide 200 liters of foam for Minute Man system, in pail of 20 liters in addition to the amount of the tank in service to be included in the contract.

fireCombat

A DIVISION OF SENSOR ELECTRONICS CORP.

FIRE SUPPRESSION/SECURING SYSTEMS

MODEL 13028

450 PKP/100 AFFF

TWIN AGENT SYSTEM

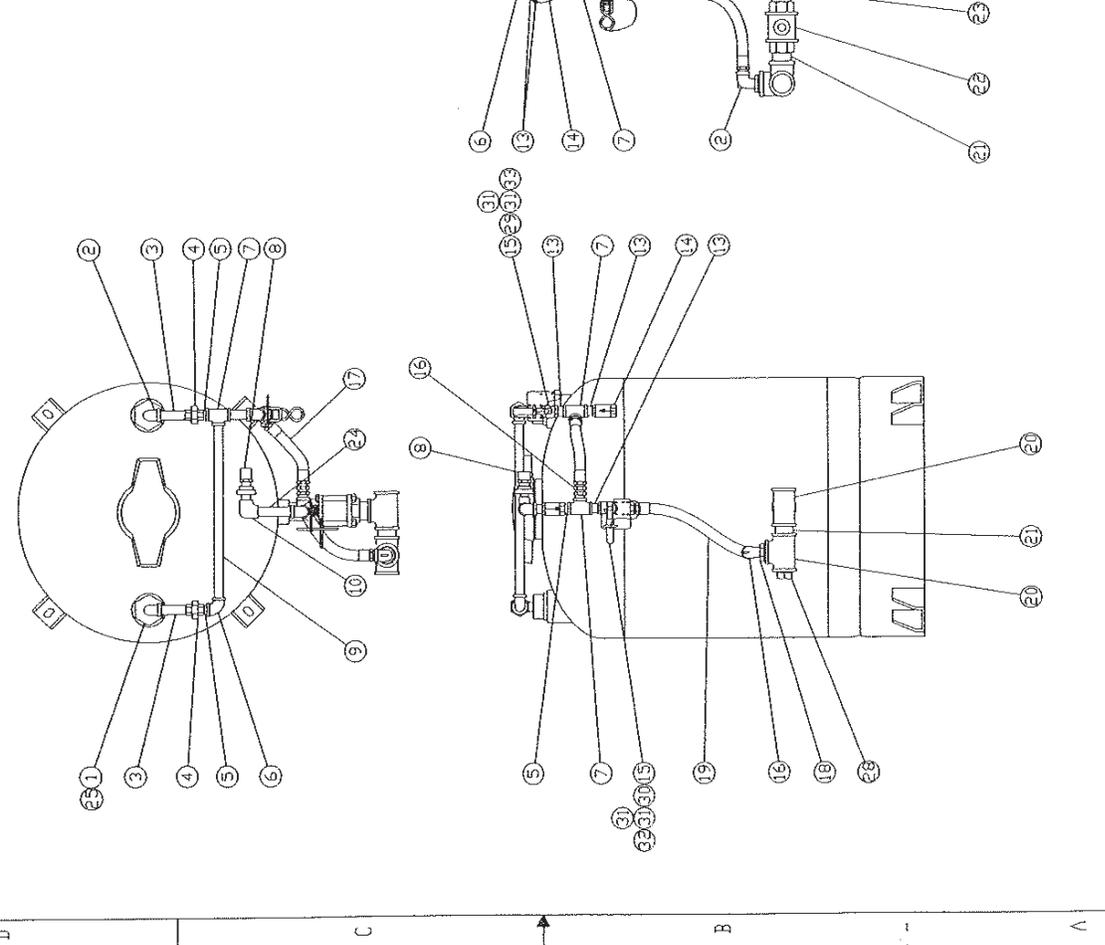
With Pneumatic Actuation Option Notes

REVISIONS		DATE	APPROVED
0	ORIGINAL ISSUE		
1	INTEGRAL PL. ADDED 1 ITEM 2 ADDED. ITEMS 29-33 ADDED	12/16/94	RWB

PROBATIONARY NOTICE
THIS PRINT IS THE PROPERTY OF
FIRE COMBAT, INC. ANY REPRODUCTION
INCLUDING EXCLUSIVE RIGHTS OF USE
AND/OR MANUFACTURE AND/OR SALE
BY THE ARTISTED IS PROHIBITED.

NOTE:

- PIPE THREADS TO BE ASSEMBLED IN THE FOLLOWING WAY:
 A. FITTINGS TO BE CLEAN AND FREE OF GREASE, OIL AND CUTTING FLUIDS.
 B. APPLY LOCTITE PST 565 PIPE SEALANT TO THE FIRST 3 LEADING THREADS OF THE MALE FITTINGS, FILLING THE THREAD ROOTS.
 C. WRENCH FITTINGS UNTIL THE PROPER ALIGNMENT IS OBTAINED.
 D. ALLOW PIPE JOINTS TO FULLY CURE FOR 24 HOURS BEFORE PRESSURE TESTING.
- PRESSURIZE FITTED ASSEMBLY TO 240 PSIG. LEAKS FORMING SLOW BUBBLES THROUGH LEAK DETECTING SOLUTION PERMITTED IN PACKINGS AND GASKETED JOINTS. NO LEAKS PERMITTED IN TAPER THREADED JOINTS.
- REMOVE HOSES AND PRESSURE RELIEF VALVE AND PLUG OR CAP ALL OPENINGS PRIOR TO NEAR WHITE ABRASION BLASTING.
- REGULATOR ASSEMBLY TO BE DEAD SET @ 230 ±5 PSIG USING STANDARD FIRE COMBAT PROCEDURE.
- GREASE FILL CAP WITH SILICONE GREASE PRIOR TO ASSEMBLY.
- FINAL PAINT PER CONTRACT.



ITEM	QTY	P/N	DESCRIPTION
24	3	04333	SEAL, RED PLASTIC
30	1	04302	NAMEPLATE, CHARGE VALVE
32	1	04302	NAMEPLATE, PURGE VALVE
31	4	04360	SCREW, MACH. PAN HD, #10-24 X .25 IN LG, SST
30	1	*08598-BL	BRACKET ASSY, NAMEPLATE, NO. BLACK
29	1	*08598-BL	BRACKET ASSY, NAMEPLATE, NO. BLACK
29	1	02185	PLUG, 1/2" BKT, HI
27	1	*08512	CHASSIS, FILL
26	1	02376	TANK, 450 LB FRP
25	2	*05285	TUBE ASSY, GFS, 300 IN LG
24	1	02402-4	NIPPLE, .5 NPT X .40 IN LG, SCHED 40 BLK
23	1	02406-35	NIPPLE, 1.25 NPT X .35 IN LG, SCHED 40 BLK
22	1	*04898	VALVE ASSY, BALL, 1.25 NPT
21	2	02406-5H	NIPPLE, 1.25 NPT X SHORT, SCHED 40 BLK
20	2	02076	TEE, 1.25 NPT, 150# HI
19	1	08008-16.5	HOSE ASSY, 250 PSI, .5 NPT X 16.5 IN LG, M/M
18	1	02309	HOSE ASSY, 250 PSI, .5 NPT X 7.0 IN LG, M/M
17	1	02309	HOSE ASSY, 250 PSI, .5 NPT X 7.0 IN LG, M/M
16	2	01735	ADAPTOR, SMV, UNION, .5 IN
15	2	04971	VALVE, BALL, .5 NPT
14	2	04978	VALVE, CHECK, .5 NPT
13	5	02402-5H	NIPPLE, .5 NPT X SHORT, SCHED 40 BLK
12	1	02402-2	NIPPLE, .5 NPT X 2.0 IN LG, SCHED 40 BLK
11	1	02402-25	NIPPLE, .5 NPT X 2.5 IN LG, SCHED 40 BLK
10	1	04459	ELBOW, 90°, SIDE OUTLET, .5 NPT, 150# HI
9	1	02402-16.75	NIPPLE, .5 NPT X 16.75 IN LG, SCHED 40 BLK
8	1	08435	VALVE, RELIEF, .5 NPT, 250 PSI
7	3	02073	TEE, .5 NPT, 150# HI
6	3	02043	ELBOW, 90°, .5 NPT, 150# HI
5	3	02402-CL	NIPPLE, .5 NPT X CLOSE, SCHED 40 BLK
4	2	02178	UNION, .5 NPT, 150# HI
3	2	02402-3.5	NIPPLE, .5 NPT X 3.5 IN LG, SCHED 40 BLK
2	2	02103	ELBOW, ST, 90°, .5 NPT, 150# HI
1	2	04435	BUSHING, TANK, 2.0 X .5 X .5 NPT, HI

DATE	BY	REV	DESCRIPTION
12/20/92	RWB	0	ORIGINAL ISSUE
		1	INTEGRAL PL. ADDED 1 ITEM 2 ADDED. ITEMS 29-33 ADDED

DATE	12/20/92
BY	RWB
CHK	TK
ENGR	
APP	
CONF	NO
ISSN	ACTIVITY
APPROVAL	
NOTED	
(PL 08618)	

50 NPT SCALE DRAWING	
REWORKS AND BREAK	
SHARP EDGES	
FINISHES PER CONTRACT	
ONE PLACE(L) :	
TWO PLACE(L) :	
THREE PLACE(L) :	
FOUR PLACE(L) :	
FIVE PLACE(L) :	
SIX PLACE(L) :	
SEVEN PLACE(L) :	
EIGHT PLACE(L) :	
NINE PLACE(L) :	
TEN PLACE(L) :	
ELEVEN PLACE(L) :	
TWELVE PLACE(L) :	
THIRTEEN PLACE(L) :	
FOURTEEN PLACE(L) :	
FIFTEEN PLACE(L) :	
SIXTEEN PLACE(L) :	
SEVENTEEN PLACE(L) :	
EIGHTEEN PLACE(L) :	
NINETEEN PLACE(L) :	
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TWENTY SIX PLACE(L) :	
TWENTY SEVEN PLACE(L) :	
TWENTY EIGHT PLACE(L) :	
TWENTY NINE PLACE(L) :	
THIRTY PLACE(L) :	
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THIRTY FOUR PLACE(L) :	
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THIRTY SIX PLACE(L) :	
THIRTY SEVEN PLACE(L) :	
THIRTY EIGHT PLACE(L) :	
THIRTY NINE PLACE(L) :	
FOURTY PLACE(L) :	
FOURTY ONE PLACE(L) :	
FOURTY TWO PLACE(L) :	
FOURTY THREE PLACE(L) :	
FOURTY FOUR PLACE(L) :	
FOURTY FIVE PLACE(L) :	
FOURTY SIX PLACE(L) :	
FOURTY SEVEN PLACE(L) :	
FOURTY EIGHT PLACE(L) :	
FOURTY NINE PLACE(L) :	
FIFTY PLACE(L) :	

Fire Combat
MILITARY WEEDON 3440

450H DC TANK AND PIPING ASSY

SIZE	C	DWG NO.	08618
SCALE	1/8"	WEIGHT	300#
SHEET	1	OF	1

**6% AFFF REFILL TABLE
100 GALLON (378.5L) TANK**

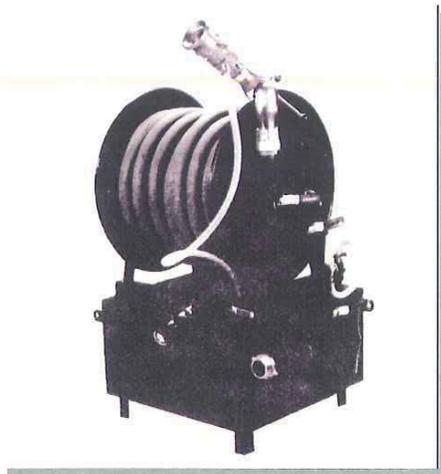
The Quantity of AFFF (Aqueous Film Forming Foam) 6% concentrate and water required for a partial refill can be determined by completing the following steps:

1. Make certain that the system is level.
2. Remove the fill cap.
3. Measuring the distance from the Top of the Fill Opening collar to the surface of the remaining Liquid in the tank and add the Noted AFFF and Water.

Distance from top of Fill Opening collar to surface of Liquid.		6% AFFF to Add		WATER to Add	
(Inches)	(cm)	(Gallons)	(Liters)	(Gallons)	(Liters)
4.50	11.4	0.00	0.0	0.00	0.00
7.00	17.8	0.50	1.9	8.0	30.3
9.25	23.5	1.00	3.8	15.5	58.7
11.50	29.2	1.50	5.7	23.5	88.9
13.50	34.1	2.00	7.6	31.0	117.3
15.50	39.3	2.50	9.5	39.0	147.6
17.00	43.2	3.00	11.4	47.0	177.9
18.50	47.0	3.50	13.2	55.0	208.2
20.50	52.1	4.00	15.1	63.0	238.5
22.50	57.2	4.50	17.0	70.5	266.8
24.75	62.9	5.00	18.9	78.0	295.3
27.00	68.6	5.50	20.8	86.0	325.5
31.25	79.4	6.00	22.7	94.0	355.8

TABLE B

**'MINUTEMAN II'
FOAM HOSE REEL STATION
MODEL 150&225/603, /953, /606 & /956**



**INSTALLATION, OPERATION
& MAINTENANCE MANUAL**



Systeme d'extinction hangar d'hélicoptère
Minuteman II model 150

'MINUTEMAN II'
FOAM HOSE REEL STATION
MODEL 150&225/603, /953, /606 & /956

2. INTRODUCTION

The Spectrum 'Minuteman II' Hose Reel Station proportioning and delivery system combines the proven performance and reliability of eductor technology with a simplified design that provides ease of operation for fire fighting personnel. The fundamental and field-proven design maximizes reliability during operation. This proven technology is currently used throughout the world to protect fleet aircraft for government and industry as well as tank farm and process facilities for the hydrocarbon and petrochemical industries.

- a. This Spectrum 'Minuteman II' Hose Reel Station with Low Flow Hydro-Foam Monitor manual has been prepared as a reference guide for the new as well as experienced hose reel station operator. Read this manual and all other equipment manuals before attempting to operate the system.
- b. The Spectrum 'Minuteman II' Hose Reel Station with Low Flow Hydro-Foam Monitor is engineered for dependability under specific operating conditions. The principles presented in this manual are limited to the facts related directly to the operation of this appliance, while the responsibility for the proper application of these principles belongs to the operator.
- c. Fire Protection personnel efficiency can be maintained by periodically reviewing the manual information, and by holding regular operational practice drills.
- d. Operator safety, and safety of all personnel around the unit depends on the operators care and judgment when operating or maintaining the unit.

All information and specifications contained in this manual are based on the latest information available at the time of printing. Illustrations are intended for reference use only.

'MINUTEMAN II'
FOAM HOSE REEL STATION
MODEL 150&225/603, /953, /606 & /956

3. SYSTEM OVERVIEW

Model #	150/603	150/953	150/606	150/956	225/603	225/953	225/606	225/956
Hand line Flow @ 150 psi	60 gpm	95 gpm						
Monitor Flow @ 100 psi	150 gpm	150 gpm	150 gpm	150 gpm	225 gpm	225 gpm	225 gpm	225 gpm
Proportioning Rate	3%		6%		3%		6%	

The Spectrum 'Minuteman II' Hose Reel Station with Low Flow Hydro-Foam Monitor features the following major components:

- 1) 60 US gallon stainless steel storage tank w/6" fill & 3/4" vacuum relief vent
- 2) Manual rewind continuous flow hose reel
- 3) 100' x 1 1/2" hose w/1 1/2" FNH swivel and 1 1/2" MNH rigid couplings
- 4) Williams 30-125 USGPM "Viper" hand line nozzle w/1 1/2" FNH swivel inlet (standard – other nozzles may be utilized to meet a particular specification)
- 5) Williams 60/95USGPM foam eductor
- 6) Integral foam supply ball check valve
- 7) 3% or 6% proportioning metering orifices
- 8) 1 1/2", 1/4 turn water/foam selector valves
- 9) 3/4", 1/4 turn foam supply valve
- 10) 2" Spectrum Mini-Monitor
- 11) 150/225 USGPM Small Body Hydro-Foam nozzle
- 12) 2", 1/4 turn monitor shut-off valve
- 13) 1", 1/4 turn foam supply valve
- 14) 3/4" tank drain w/hex plug

The hose reel/monitor station is designed for rigid mounting and to provide a minimum hand line water/foam solution discharge rate of 60/95 USGPM @ 150 PSI and monitor water/foam solution discharge rate of 150/225 USGPM @ 100 PSI inlet pressure to the unit. In operation the hose reel station can be used to discharge hand line/monitor water only and 3% or 6% foam solution as determined by various control valve configurations and specific hose reel station model number.

The foam concentrate storage tank features a 6" fill opening w/PVC screw on cap for easy filling and 3/4" vacuum relief vent to allow air entry into the tank as the foam concentrate supply depletes during operation.

Hose that is reeled off during operation is returned on the reel by use of a manual crank handle supplied with the hose reel station.

Dual 1½", ¼ turn water inlet control valves regulate water flow into the eductor/piping system allowing the operator to choose water only or foam solution discharge for hose reel hand line operation. A ¾", ¼ turn foam supply valve assures complete foam supply shut-off for water only operation while a fixed diameter metering orifice plate controls 3% or 6% proportioned foam solution discharge. An integral foam supply ball check valve prevents back-flow of water into the 60 US gallon foam concentrate storage tank in the event the operator fails to close the ¾", ¼ turn foam supply valve during water only discharge operations. This check valve also prevents back-flow of water into the concentrate storage tank during no-flow operation when either the 1½", ¼ turn water or foam inlet control valves are open and the Viper hand line nozzle is closed. A ¾" FNPT tank drain w/hex plug is provided for draining and/or flushing of the foam concentrate storage tank.

A single 2", ¼ turn water inlet control valve regulates water flow to the 2" Low Flow Hydro-Foam Mini-Monitor. A 1", ¼ turn foam supply valve assures complete foam supply shut-off for water only operation while a fixed diameter metering orifice plate within the nozzle foam inlet port controls 3%/6% proportioned foam solution discharge. As with the hose reel hand line, an integral foam supply ball check valve prevents back-flow of water into the 60 US gallon foam concentrate storage tank through the foam concentrate pick-up hose.

REPORT ANY ERRORS OR OMISSIONS TO THE MANAGER
 SIGNALER LES ERREURS OULLES OMISSIONS AU GESTIONNAIRE SJI

POUCHES 4

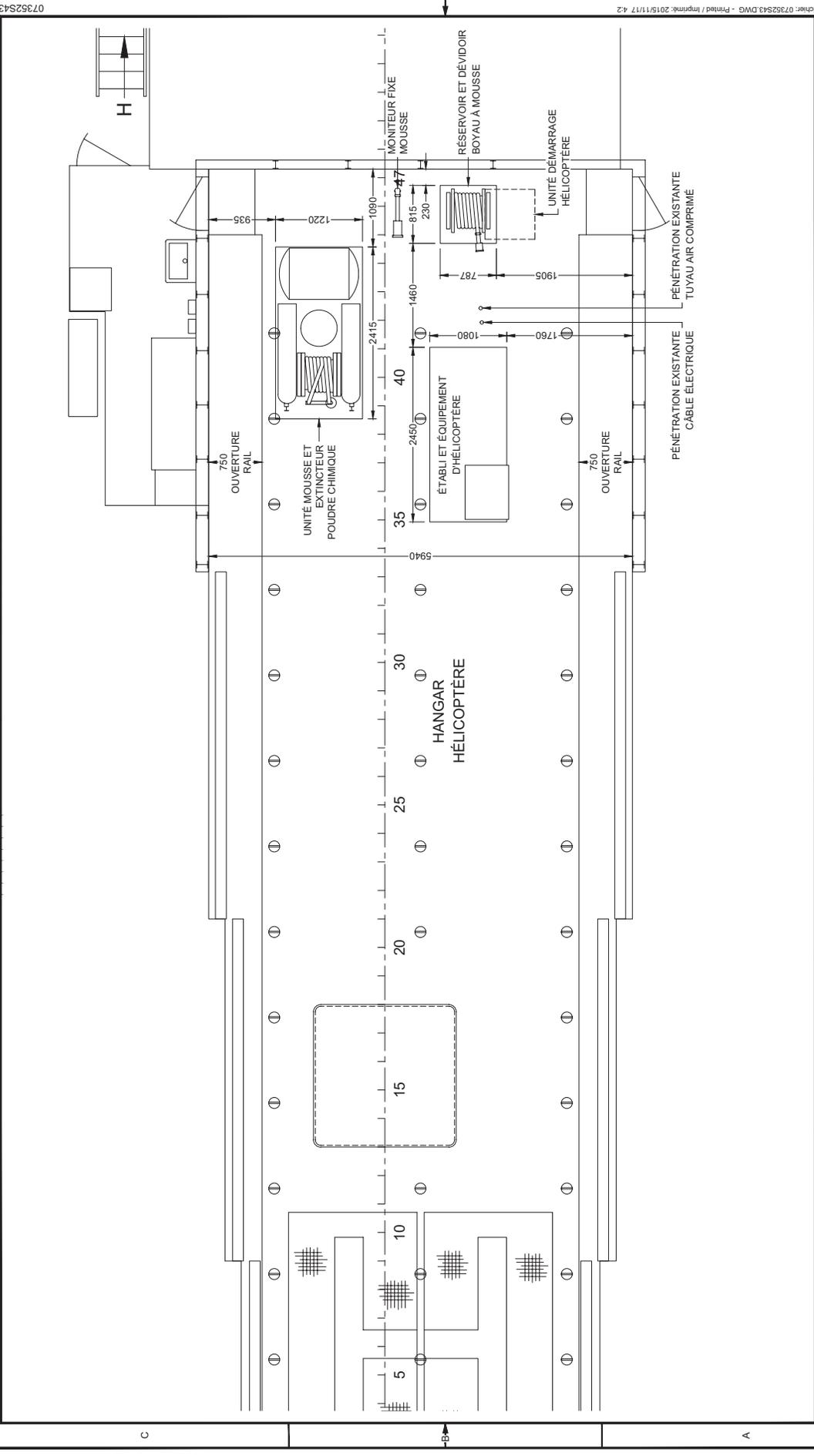
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CAD PRODUCED DRAWING
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Fisheries and Oceans Canada Canadian Coast Guard	Pêches et Océans Canada Garde côtière Canadienne	assigned - conception drawn - dessin B.O.	date checked - vérifié date approved - approuvé 2015-1-17	date date 0	description ORIGINAL	Date par Date	Drawing - Dessin Arrangement des Équipements de Lutte contre l'Incendie Hangar Hélicoptère	Drawing no. - no. dessin 07352S43	Rev 01/01	Rev 0
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Eau de mer de la p/p
appoint 100 psi

500L ch.

146"



Helicoptère

MILIEUX MOUSSE D'EXTINCTION FFP/PLUS D'ANGIUS FIRE
(CORPORATION A 3%)
NON TOXIQUE ET A PROPRIETE NON TOXIQUE
DATE DE REMPLISSAGE: NOVEMBRE 2002
QUANTITE: 500 LITRES
MILIEUX FFP/PLUS COMPATIBLE AVEC ADEANT
EXTINCTION AU POUVRE CHIMIQUE
TEMPERATURE MINIMALE D'UTILISATION: -17°C/CELIUS
PERIODE D'ENTREPOSAGE: SUPERIEURE A 10 ANS
(ANNUSE D'ENTREPOSAGE ANNUELLE)

B

B





EXTINGUEUR MOBILE D'EXTINCTION FFPD PLUS D'ANGUS FINE
FLUOROPROTECTORIQUE À 2531
RESISTABLE ET À PROPRIÉTÉ NON TOXIQUE
DATE DE REMPLISSAGE: NOVEMBRE 2002
QUANTITÉ: 500 LITRES
EXTINGUEUR FFPD PLUS COMPATIBLE AVEC AGENT
D'EXTINCTION AU POUDRE CHIMIQUE
TEMPÉRATURE MINIMALE D'UTILISATION: -12° CELSIUS
PERIODE D'ENTRETIEN: SUPÉRIEURE À 16 ANS
(NON PSE DE CHATELONNAGE ANNUEL)



B

Canons

eau

Mousse

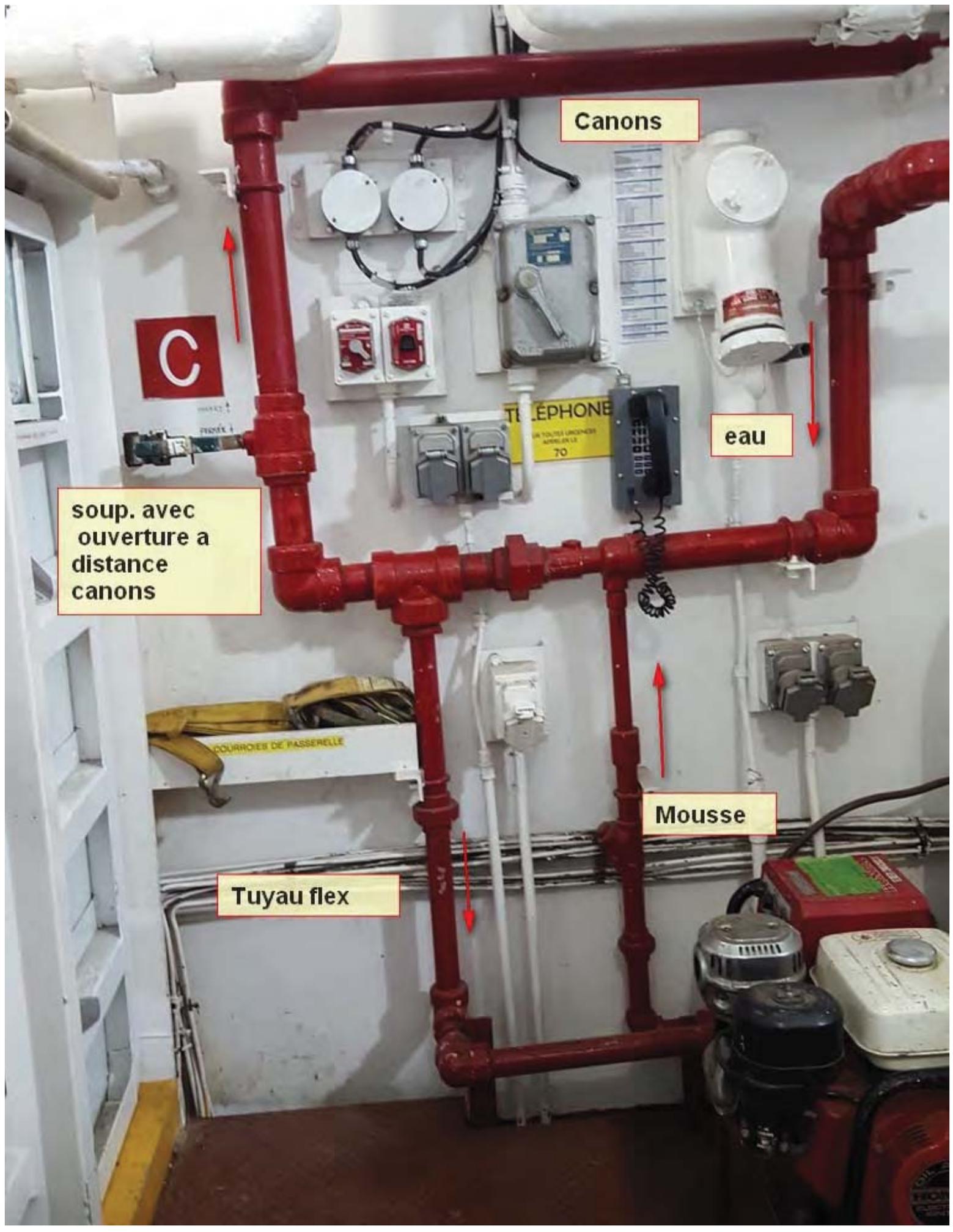
Tuyau flex

soup. avec
ouverture a
distance
canons



TELEPHONE
EN TOUTES LANGUES
ARRETE 09 13
70

COURROIES DE PASSERELLE





FireCombat MARINETTE, WISCONSIN 54143 USA

FAST DRY CHEMICAL SYSTEM

APFF SYSTEM

TO OPERATE

MANUAL ACTIVATOR

ACTIVATE DRY CHEMICAL AND APFF SYSTEM BY PULLING RING PIN AND PUSHING RED ACTIVATOR BUTTON LOCATED ON LEFT FACED PANEL.

OPEN DRY CHEMICAL AND/OR APFF HOSE REEL VALVES!

REMOVE NOZZLE FROM HOLDER

PULL DRY HOSE.

OPEN DRY CHEMICAL AND/OR APFF NOZZLES FULLY.

DIRECT EACH HAND LINE STREAM AT BASE OF FLAMES WITH A SIDE TO SIDE SWEEPING MOTION.

FireCombat MARINETTE, WISCONSIN 54143 USA

LABEL NO. 00121

FireCombat

Marinette, Wisconsin 54143 USA

⚠ WARNING

ELECTROCUTION HAZARD

DO NOT USE THE APFF SYSTEM ON CLASS C (ELECTRICAL FIRES).

THE APFF SOLUTION CONDUCTS ELECTRICITY.

USE OF APFF SOLUTION ON ELECTRICAL FIRES WILL RESULT IN SEVERE PERSONAL INJURIES OR DEATH.

00121



