



Return Bids to :

Retourner Les Soumissions à :

Natural Resources Canada – Ressources
naturelles Canada
Shipping and Receiving (rear of building)
Expédition et réception (l'arrière du bâtiment)
183 Longwood Road South
Hamilton, Ontario
L8P 0A5

**Request for Proposal (RFP)
Demande de proposition (DDP)**

The Bidder offers to provide to Canada the goods,
services or both listed in the bid solicitation in accordance
with the conditions set out in the bid solicitation and at the
prices set out in the bid.

Le soumissionnaire offre de fournir au Canada les biens,
services ou les deux énumérés dans la demande de
soumissions aux conditions prévues dans la demande de
soumissions et aux prix indiqués dans la soumission.

Comments – Commentaires

Issuing Office – Bureau de distribution

Finance and Procurement Management
Branch
Natural Resources Canada
183 Longwood Road South
Hamilton, Ontario
L8P 0A5

| | |
|---|---|
| Title – Sujet Thermal Spray Application Service – Vessel Coating | |
| Solicitation No. – No de l'invitation NRCAN- 5000020776 | Date April 4, 2016 |
| Client Reference No. - N° de reference du client 129699 | |
| Requisition Reference No. - N° de la demande | |
| Solicitation Closes – L'invitation prend fin at – à April 20, 2016 on – le 04:00 PM EDT | |
| Address Enquiries to: - Adresse toutes questions à: Len.pizzi@canada.ca | Buyer ID – Id de l'acheteur |
| Telephone No. – No de telephone (905) 645-0676 | Fax No. – No. de Fax (905) 645-0831 |
| If marked "X" please see the box to the left <input checked="" type="checkbox"/> Acknowledgement copy required S'il ya un "X" ici, s.v.p. voir la boîte à la gauche Accusé de réception requis | |
| Destination – of Goods, Services and Construction: Destination – des biens, services et construction: Attn: Paul Cairns Natural Resources Canada 1 Haanel Drive - Building 2B 1-12 Ottawa, ON K1A 1M1 | |
| Security – Sécurité There is no security requirement applicable to this Contract. | |
| Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur Telephone No.:- No. de téléphone: Facsimile No.:- No. 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 is divided into seven parts plus attachments and 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;
- 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, 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 Statement of Work, the Basis of Payment, and any other annexes.

1.2 Summary

By means of the RFP, NRCan is seeking proposals from bidders for....

1.2.1 Liquid Metal Coating of Interior of Process Vessels

The scope of work will be:

To have the interior of various process vessels coated with Hastelloy® C 276 using high velocity oxygen fuel (HVOF) thermal spray application. The interior of the following vessels (as well as the quantity) are as follows:

1. Combustor assembly, including bonnet, upper and lower shell assemblies (x1)
2. Ash handling vessel #1 (x1)
3. Ash handling vessel #2 (x1)
4. SS316 24" blowdown tank (x1)
5. Scrubber bottom cross (x1)
6. Scrubber main vessel (x1)
7. Scrubber top head (x1)
8. Filter housing assembly (x6)
9. Quench-scrubber line (scrubber end) (x1)
10. Quench-scrubber line (quench end) (x1)
11. Reactor sandwich flange (x1)

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.



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 with the modifications to the text below. If there is a conflict between the provisions of 2003 and this document, this document prevails.

- **In the complete text content (except Section 3) Delete:** Public Works and Government Services Canada” and **Insert:** “Natural Resources Canada.” **Delete:** “PWGSC” and **Insert:** “NRCan”
- **Section 2:** **Delete:** “Suppliers are required to” and **Insert:** “It is suggested that suppliers”
- **Subsection 1 of Section 8:**
Delete: Unless specified otherwise in the bid solicitation, bids may be submitted by facsimile. The only acceptable facsimile number for responses to bid solicitations issued by PWGSC headquarters is 819-997-9776 or, if applicable, the facsimile number identified in the bid solicitation. The facsimile number for responses to bid solicitations issued by PWGSC regional offices is identified in the bid solicitation
Insert: Unless specified otherwise in the bid solicitation, bids may be submitted by facsimile. The only acceptable facsimile number for responses to bid solicitations is the facsimile number identified in the bid solicitation.
- **Under Subsection 2 of Section 20:** Not applicable

2.2 Submission of Bids

It is the Bidders responsibility to ensure that proposals are delivered to the following location, by the time and date indicated on page 1 of this RFP document:

*Natural Resources Canada – Ressources naturelles Canada
Shipping and Receiving (rear of building)
Expédition et réception (l'arrière du bâtiment)
183 Longwood Road South
Hamilton, Ontario
L8P 0A5*

It is requested that the Bidder's name, return address, Request for Proposal Number, and Bid Closing Date appear legibly on the outside of the envelope containing the Bidder's proposal. Failure to do so may result in bids being misdirected. **NRCan will not assume responsibility for proposals directed to any other location.**

The onus is on the Bidder to ensure that the proposal is delivered to the location above. Not complying with the above instructions may result in NRCan's inability to ascertain reception date and/or to consider the bid prior to contract award. Therefore, NRCan reserves the right to reject any proposal not complying with these instructions.

- 2.2.1 Due to the nature of the bid solicitation, bids transmitted by facsimile or electronic mail to NRCan will not be accepted.



NRCan will not assume responsibility for proposals directed to any other location.

The onus is on the Bidder to ensure that the proposal is submitted correctly to the above address. Not complying with the above instructions may result in NRCan's inability to ascertain reception date and/or to consider the bid prior to contract award. Therefore, NRCan reserves the right to reject any proposal not complying with these instructions.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) 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 question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered 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 Ontario.

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.

2.5 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least five (5) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.



PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

Section I: Technical Bid (1 electronic copy)

Section II: Financial Bid (1 electronic copy) in a separate file

Section III: Certifications (1 electronic copy)

Section IV: Additional Information (1 electronic copy)

Section I: Technical Bid

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Section II: Financial Bid

3.1.1 Bidders must submit their financial bid in accordance with the Pricing Schedule detailing below in Annex B2.3.1. The total amount of Applicable Taxes must be shown separately.

3.1.2 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

3.1.3 SACC Manual Clauses

Section III: Certifications

Bidders must submit the certifications required under Part 5.



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 and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

Mandatory evaluation criteria are included in Annex "B"

4.1.2 Financial Evaluation

4.1.2.1 Mandatory Financial Criteria

See Annex "B"

Evaluation of Price – Canadian / Foreign Bidders

1. The price of the bid will be evaluated as follows:
 - a. Canadian-based bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
 - b. foreign-based bidders must submit firm prices, Canadian customs duties, excise taxes and Applicable Taxes excluded. Canadian customs duties and excise taxes payable by Canada will be added, for evaluation purposes only, to the prices submitted by foreign-based bidders.
2. Unless the bid solicitation specifically requires bids to be submitted in Canadian currency, bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.
3. Although Canada reserves the right to award the Contract either on an FOB plant or FOB destination, Canada requests that bidders provide prices FOB their plant or shipping point and FOB destination. Bids will be assessed on an FOB destination basis.
4. For the purpose of the bid solicitation, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.
5. Unless specified otherwise in the Contract, the price includes no amount for any federal excise tax, state or local sales or use tax, or any other tax of a similar nature, or any Canadian tax whatsoever. The price, however, includes all other taxes. If the Work is normally subject to federal excise tax, Canada will, upon request, provide the Contractor a certificate of exemption from such federal excise tax in the form prescribed by the federal regulations.
6. Canada will provide the Contractor evidence of export that may be requested by the tax authorities. If, as a result of Canada's failure to do so, the Contractor has to pay federal excise tax, Canada will reimburse the Contractor if the Contractor takes such steps as Canada may



require to recover any payment made by the Contractor. The Contractor must refund to Canada any amount so recovered.

4.2 Basis of Selection

4.2.1 Mandatory Technical Criteria

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



PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information 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 made knowingly or unknowingly, 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 and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

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

5.1.1 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed [Declaration Form](http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

5.2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) 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.

5.2.3 Additional Certifications Precedent to Contract Award

5.2.3.1 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability.

5.2.3.2 Rate or Price Certification

The Bidder certifies that the price proposed is not in excess of the lowest price charged anyone else, including the Bidder's most favoured customer, for the like quality and quantity of the goods, services or both.

5.2.3.3 Education and Experience

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

5.2.3.4 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:



-
- a. an individual;
 - b. an individual who has incorporated;
 - c. a partnership made of former public servants; or
 - d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c. C-17, the *Defence Services Pension Continuation Act*, 1970, c. D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c. R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c. R-11, the *Members of Parliament Retiring Allowances Act*, R.S. 1985, c. M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c. C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes** () **No** ()

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** () **No** ()

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;



- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

5.2.3.4 Aboriginal Designation

An Aboriginal business, which can be:

- i. a band as defined by the Indian Act
- ii. a sole proprietorship
- iii. a limited company
- iv. a co-operative
- v. a partnership
- vi. a not-for-profit organization

in which Aboriginal persons have at least 51 percent ownership and control,
OR

A joint venture consisting of two or more Aboriginal businesses or an Aboriginal business and a non-Aboriginal business(es), provided that the Aboriginal business(es) has at least 51 percent ownership and control of the joint venture.

This is to confirm:

- Our Company is an Aboriginal Firm, as identified above
- Our Company is NOT an Aboriginal Firm

Signature of Authorized Representative

Date



PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirements

There is no security requirement applicable to this Contract.

6.2 Insurance Requirements

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.



PART 7 - RESULTING CONTRACT CLAUSES

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

7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled _____, dated _____.

7.2 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](https://buyandsell.gc.ca/policy-and-guidelines/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.

7.2.1 General Conditions

[2010B \(2015-09-03\)](#), General Conditions – Professional Services - Medium Complexity, apply to and form part of the Contract.

As applicable, replace references to Public Works and Government Services Canada (PWGSC) with Natural Resources Canada (NRCan).

7.2.2 Supplemental General Conditions

The following clauses apply to this contract:

7.2.2.1 Dispute Resolution

Mediation

If a dispute arising from this contract cannot be settled amicably through negotiation, then the parties agree in good faith to submit the dispute to mediation as administered by the Arbitration and Mediation Institute of Canada Inc. (AMIC). The parties acknowledge receipt of the rules of AMIC. The cost of mediation shall be borne equally by the parties.

Arbitration

If the parties cannot resolve the dispute through mediation within sixty (60) days, the parties agree to submit the dispute to arbitration pursuant to the Commercial Arbitration Act (Canada). The party requesting such arbitration shall do so by written notice to the other party/parties. The cost of the arbitration and fees of the arbitrator shall be borne equally by the parties. The arbitration shall take place in the city where the contractor carries on business before a single arbitrator to be chosen jointly by the parties. If the parties cannot agree on the choice of arbitrator within thirty (30) days of written notice to submit the dispute to arbitration, each party will choose a representative who will select the arbitrator. The parties may determine the procedure to be followed by the arbitrator in conducting the proceedings, or may ask the arbitrator to do so. The arbitrator shall issue a written award within thirty (30) days of hearing the parties. The award may be entered in any court having jurisdiction and enforced as a judgment of that court.

Meaning of "Dispute"

The parties agree that the word "dispute" in this clause refers to a dispute of fact or of law, other than a dispute of public law.



The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will, on request or consent of the parties to participate in an alternative dispute resolution process to resolve any dispute between the parties respecting the interpretation or application of a term and condition of this contract and their consent to bear the cost of such process, provide to the parties a proposal for an alternative dispute resolution process to resolve their dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca.

7.3 Security Requirements

7.3.1 There is no security requirement applicable to this Contract.

7.4 Term of Contract

7.4.1 Period of the Contract

The period of the Contract is from date of Contract to June 31, 2016 inclusive.

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Len Pizzi
Title: Procurement Officer
Organization: Natural Resources Canada
Address: 183 Longwood Road South, Hamilton, ON, L8P 0A5
Telephone: (905) 645-0676
Facsimile: (905) 645-0831
E-mail address: len.pizzi@canada.ca

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

7.5.2 Project Authority

The Project Authority for the Contract is:

Name:
Title:
Organization:
Address:
Telephone: _____
Facsimile: _____
E-mail address: _____

The Project 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 Project Authority; however, the



Project 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.

7.5.3 Contractor's Representative

7.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

7.7 Payment

7.7.1 Basis of Payment – Firm Price, Firm Unit Price(S) or Firm Lot Price(s)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price as specified in the contract for a cost of \$ _____. Customs duties are included and Applicable Taxes are extra.

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

7.7.2 Method of Payment

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, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

7.8 Invoicing Instructions

Invoices shall be submitted using **one of the following methods:**

| | | |
|--|------------------|--|
| <p><u>E-mail:</u></p> <p>NRCan.invoice_imaging-service_dimagerie_des_factures.RNCan@canada.ca</p> <p>Note: Attach "PDF" file. No other formats will be accepted</p> | <p>OR</p> | <p><u>Fax:</u></p> <p>Local NCR region: 613-947-0987 Toll-free: 1-877-947-0987</p> <p>Note: Use highest quality settings available.</p> |
|--|------------------|--|

Please do not submit invoices using more than one method as this will not expedite payment.

Invoices and all documents relating to a contract must be submitted on the Contractor's own form and shall bear the following reference numbers: Contract number: _____



Invoicing Instructions to suppliers: <http://www.nrcan.gc.ca/procurement/3485>

7.9 Certifications

7.9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if 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.

7.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

7.11 Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the general conditions 2010B (2015-09-03), General Conditions – Professional Services - Medium Complexity, apply to and form part of the Contract;
- (c) Annex A, Statement of Work;
- (d) the Contractor's bid dated _____, as clarified on _____".

7.12 Foreign Nationals (Canadian Contractor **OR** Foreign Contractor)

SACC Manual clause [A2000C](#) (2006-06-16) Foreign Nationals (Canadian Contractor)

OR

SACC Manual clause [A2001C](#) (2006-06-16) Foreign Nationals (Foreign Contractor)

7.13 Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

7.14 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by [*the supplier or the contractor or the name of the entity awarded this contract*] respecting administration of this contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract



are not in dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca.



ANNEX “A”

STATEMENT OF WORK

SW.1.0 TITLE

Liquid Metal Coating of Interior of Process Vessels

SW.2.0 BACKGROUND

CanmetENERGY is constructing a pilot plant that will that will operate at high pressure with corrosive environments. We need to have the interior of various process vessels coated with Hastelloy® C-276 to protect the main pressure vessels from corrosion as a result of operation.

SW.3.0 OBJECTIVES

The objective of this work is to have the interior of various process vessels coated with Hastelloy® C-276 using high velocity oxygen fuel (HVOF) thermal spray application. The interior of the following vessels (as well as the quantity) are listed here. Drawings of the vessels are included in **Section 7.1**.

1. Combustor assembly, including bonnet, upper and lower shell assemblies (x1)
2. Ash handling vessel #1 (x1)
3. Ash handling vessel #2 (x1)
4. SS316 24" blowdown tank (x1)
5. Scrubber bottom cross (x1)
6. Scrubber main vessel (x1)
7. Scrubber top head (x1)
8. Filter housing assembly (x6)
9. Quench-scrubber line (scrubber end) (x1)
10. Quench-scrubber line (quench end) (x1)
11. Reactor sandwich flange (x1)

SW.4.0 PROJECT REQUIREMENTS

SW.4.1 Tasks, Deliverables, Milestones and Schedule

Hastelloy® C-276 coating will be applied to all interior surfaces of the following vessels. Care MUST be taken to avoid applying the spray coating to the raised faces of any flanges. Drawings for the vessels are included in **Section 7.1** that can be used to estimate surface area requirements for bidding purposes. All vessels are made of 316 SS unless otherwise specified. Each bid must be broken down into cost per vessel/task.

| Tasks/Activities | Deliverables/Milestones | Time Schedule | Constraints |
|---|--|--|-------------|
| 1. Combustor, including bonnet, upper and lower shell assemblies (previously coated in Armacor® X80) (x1) | <ul style="list-style-type: none"> - Combustor assembly, including bonnet, upper and lower shell assemblies will be shipped to the contractor at CanmetENERGY’s expense. - Hastelloy® C-276 will be applied to the Armacor® X80 coated interior of the combustor assembly (Section 7.1, exhibit 1). | <i>Coated vessels to be delivered to CanmetENERGY by TBD</i> | <i>None</i> |



| | | | |
|---------------------------------|---|---|------|
| | <ul style="list-style-type: none"> - Coated vessels will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs. | | |
| 2. Ash handling vessel #1 (x1) | <ul style="list-style-type: none"> - Ash handling vessel #1 will be shipped to the contractor at CanmetENERGY's expense. - Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 2). - Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs. | Coated vessels to be delivered to CanmetENERGY by TBD | None |
| 3. Ash handling vessel #2 (x1) | <ul style="list-style-type: none"> - Ash handling vessel #2 will be shipped to the contractor at CanmetENERGY's expense. - Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 3). - Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs. | Coated vessels to be delivered to CanmetENERGY by TBD | None |
| 4. SS316 24" blowdown tank (x1) | <ul style="list-style-type: none"> - The SS316 24" blowdown tank will be shipped to the contractor at CanmetENERGY's expense. - Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 4). - Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs. | Coated vessels to be delivered to CanmetENERGY by TBD | None |
| 5. Scrubber main vessel (x1) | <ul style="list-style-type: none"> - The scrubber bottom cross will be shipped to the contractor at CanmetENERGY's expense. - Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 5). - Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated | Coated vessels to be delivered to CanmetENERGY by TBD | None |



| | <i>costs.</i> | | |
|--|--|--|-------------|
| 6. Scrubber main vessel (x1) | <ul style="list-style-type: none"> - The scrubber main vessel will be shipped to the contractor at CanmetENERGY's expense. - <i>Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 6).</i> - <i>Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs.</i> | <i>Coated vessels to be delivered to CanmetENERGY by TBD</i> | <i>None</i> |
| 7. Scrubber top head (x1) | <ul style="list-style-type: none"> - The scrubber top head will be shipped to the contractor at CanmetENERGY's expense. - <i>Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 7).</i> - <i>Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs.</i> | <i>Coated vessels to be delivered to CanmetENERGY by TBD</i> | <i>None</i> |
| 8. Filter housing assembly (x6) | <ul style="list-style-type: none"> - Six (6) filter housing assemblies will be shipped to the contractor at CanmetENERGY's expense. - <i>Hastelloy® C-276 will be applied to the interior of the six (6) vessels (Section 7.1, exhibit 8).</i> - <i>Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs.</i> | <i>Coated vessels to be delivered to CanmetENERGY by TBD</i> | <i>None</i> |
| 9. Quench-scrubber line (scrubber end) (x1) | <ul style="list-style-type: none"> - Quench-scrubber line (scrubber end) will be shipped to the contractor at CanmetENERGY's expense. - <i>Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 9).</i> - <i>Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs.</i> | <i>Coated vessels to be delivered to CanmetENERGY by TBD</i> | <i>None</i> |
| 10. Quench-scrubber line (quenched end) (x1) | <ul style="list-style-type: none"> - Quench-scrubber line (quenched end) will be shipped to the contractor at CanmetENERGY's expense. | <i>Coated vessels to be delivered to CanmetENERGY by</i> | <i>None</i> |



| | | | |
|----------------------------------|--|--|-------------|
| | <ul style="list-style-type: none"> - <i>Hastelloy® C-276 will be applied to the interior of the one (1) vessel (Section 7.1, exhibit 10).</i> - <i>Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs.</i> | <i>TBD</i> | |
| 11. Reactor sandwich flange (x1) | <ul style="list-style-type: none"> - The reactor sandwich flange will be shipped to the contractor at CanmetENERGY's expense. - <i>Hastelloy® C-276 will be applied to the interior of the one (1) flange and top and bottom up to the inner diameter of the raised faces (Section 7.1, exhibit 9).</i> - <i>Coated vessel will be delivered to CanmetENERGY in a timely manner. CanmetENERGY will be responsible for all return shipping and associated costs.</i> | <i>Coated vessels to be delivered to CanmetENERGY by TBD</i> | <i>None</i> |

SW.4.2 Reporting Requirements

Following contract award, the bidder will provide the following documentation:

- Assign a project manager (upon award of contract)
 - Provide a detailed project schedule (upon award of contract)
 - Deliver a post-job coating inspection report (upon completion of the work)
- All documentation must be sent electronically via e-mail to the technical authority.

SW.4.3 Method and Source of Acceptance

All deliverables and services rendered under any contract are subject to inspection by the Project Authority. The Project Authority shall have the right to reject any deliverables that are not considered satisfactory, or require their correction before payment will be authorized.

SW.4.4 Technical, Operational and Organizational Environment

The work will be completed at the bidders' jobsite. Site visits to CanmetENERGY will require 72 hours notice and will occur in a construction environment where proper PPE (steel toed boots, hard hats, safety glasses) will be required and supervised by a CanmetENERGY employee.

SW.5.0 OTHER TERMS AND CONDITIONS OF THE SOW

SW.5.1 Contractor's Obligations

In addition to the obligations outlined in Section 4 of this Statement of Work, the Contractor shall:

- 1). Keep all documents and proprietary information confidential;
- 2). Return all materials belonging to NRCAN upon completion of the Contract;
- 3). Submit all written reports in hard copy and electronic Microsoft Office Word or Corel WordPerfect format;



- 4). Attend meeting(s) with stakeholders, if necessary;
- 5). Participate in teleconferences, as needed;
- 6). Attend meeting at NRCan sites, if required; and/or,
- 7). Maintain all documentation in a secure area.

Title to the equipment/furnishings charged against this Contract shall vest in Canada upon payment of invoiced amounts and shall remain so vested at all times.

For each item of equipment/furnishings that is purchased, the Contractor is to record the name, manufacturer, model number, serial number, optional equipment, supplier and price and forward this information to the Project Authority.

The Contractor shall label all equipment/furnishings as being the property of Canada.

Notwithstanding the fact that the equipment/furnishings under this Contract become vested in Canada, the equipment/furnishings shall remain within the custody and control of the Contractor until such time as the Project Authority provides instructions for its delivery. During this period of time, the Contractor shall take reasonable and proper care of the equipment/furnishings.

SW.5.2 NRCan's Obligations

NRCan's obligations are to organize and pay for all shipping of vessels to and from the Contractor work site and to provide access to any necessary facilities, equipment, and/or meeting spaces for any site visits that may be required.

SW.5.3 Estimated Period of the Contract

The estimated period of the contract is from the date of Contract Award to *June 31st 2016*.

SW.5.4 Location of Work, Work Site and Delivery Point

The work will be completed at the bidders' jobsite. Site visits to CanmetENERGY will require 72 hours' notice and will occur in a construction environment where proper PPE (steel toed boots, hard hats, safety glasses) will be required and supervised by a CanmetENERGY employee.

SW.5.5 Language of Work

All of the work will be performed in English.

SW.5.6 Special Requirements

There are no additional special requirements.

SW.5.7 Insurance Requirements

It is the sole responsibility of the Contractor to decide whether or not any insurance coverage is necessary for its own protection or to fulfill its obligations under the Contract, and to ensure compliance with required federal, provincial or municipal law. Any such insurance shall be provided and maintained by the Contractor at its own expense.

Any insurance secured is to the benefit and protection of the Contractor and shall not be deemed to release or diminish its liability in any manner including as may be referenced elsewhere by the provisions of this Contract.



SW.6.0 REQUIRED RESOURCES OR TYPES OF ROLES TO BE PERFORMED

Contractors MUST submit a list of resources that will be performing the work and their qualifications so that CanmetENERGY may assess their ability to do the work.

SW.7.0 APPLICABLE DOCUMENTS AND GLOSSARY

Drawings of the vessels have been included here to help estimate interior surface areas. Contact the contract authority for PDF copies.

SW.7.1 Applicable Documents

EXHIBIT 1 - COMBUSTOR ASSEMBLY



EXHIBIT 2 - ASH HANDLING VESSEL #1

NOTES:

- All dimensions are in inches. SI units if provided are in brackets.
- All nozzle lead-inches should be major center lines unless specified noted.
- All fittings, except gasket surfaces, should be serrated (refer per ASME B16.5).
- All welds to be made in accordance, time of day and other data.
- Item to be checked of code of weld shall be on all drawings prior to hydraulic test.
- Trade nozzle corner to have a minimum .1875" radius.
- Impact test energy per UG-100.
- All applicable stress shall be per ASME B16.16.
- All fittings shall be per ASME B16.5, OR ASME B16.11.
- All welds shall be: WPS 3A (SMAW), WPS 4A (FCM), WPS 11A (GTAW).
- Service: Water
- Interior finish is 57, welds smooth.
- Exterior: Stainless Steel, class steel thick Carbon Steel One (1) shop coat of red epoxy enamel.

ELEVATION VIEW

SECTION AA

SECTION BB

WPS 3A, WPS 4A, WPS 11A, INDIVIDUALLY OR ANY COMBINED

WPS 3A, WPS 4A, WPS 11A, INDIVIDUALLY OR ANY COMBINED

NAME PLATE DETAIL

DESIGN DATA:

ASME TO BE DESIGN & MANUFACTURED ACCORDING WITH ASME SECTION VIII DIVISION 1, 2010 EDITION WITH ADDITION

MAWP: 10,000 PSIA @ 350 °F C

MALEWP: NA PSIA @ NA °F C

MOULT: 29 °F C @ 10,000 PSIA

MANOS: SIN Year BUILT

TSA: CMAA

QUANTITIES SHOWN ARE FOR ONE VESSEL.

| ITEM NO. | DESCRIPTION | QTY | UNIT |
|----------|---------------------|-----|------|
| 1 | ASH HANDLING VESSEL | 1 | EA |
| 2 | NOZZLE | 12 | EA |
| 3 | FLANGE | 12 | EA |
| 4 | GASKET | 12 | EA |
| 5 | WELDING | 12 | EA |



EXHIBIT 4 - SS316 24" BLOWDOWN TANK

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE DRAWING OFFICE. IT IS TO BE USED FOR THE PROJECT AND SITE ONLY AND NOT TO BE REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE DRAWING OFFICE.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONS: ± CHG. ± BOND ±
DECIMALS: ± CHG. ± BOND ±
THREE PLACE DECIMAL: ±
NEAREST DECIMAL
TOLERANCE PER
MATERIAL

DO NOT SCALE DRAWING

DATE: _____
NAME: _____
DRAWN: _____
CHECKED: _____
ENG APPR: _____
W/C APPR: _____
C.A.: _____

COMMENTS:
MAWP: 100 PSIG @ 750 °F
SITE DWG. NO. **B**

TITLE:
SS316
24" BLOWDOWN TANK

SCALE: 1:20 WEIGHT: _____ SHEET 1 OF 1

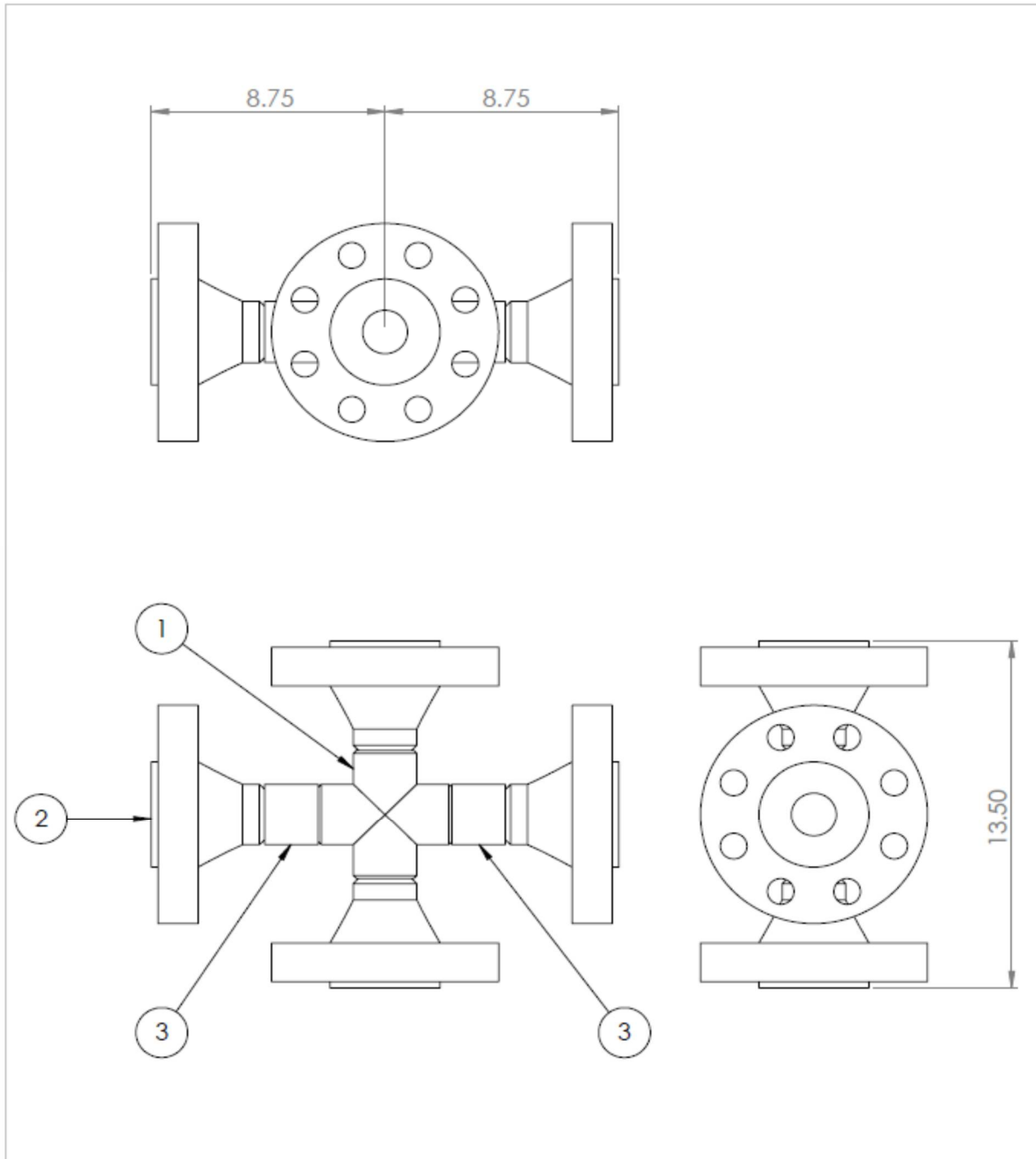
APPLICATION: USED ON _____
NEXT ASST _____

BILL OF MATERIAL

| ITEM | QTY | DESCRIPTION | MATERIAL |
|------|-----|---|----------------------|
| 1 | 1 | 1/2" SCH 40 Pipe | 316L Stainless Steel |
| 2 | 2 | 2" 21 Semi-Rigid necks 3/8" NPT x 1/2" | 316L Stainless Steel |
| 3 | 2 | 4" 8WN1 FLANGE - Class 300 SCH 40 | 316L Stainless Steel |
| 4 | 1 | 4" 8WN1 FLANGE - Class 300 SCH 40 | 316L Stainless Steel |
| 5 | 2 | 1/2" SCH 40 Pipe | 316L Stainless Steel |
| 6 | 2 | 1/2" SCH 40 Pipe | 316L Stainless Steel |
| 7 | 1 | 1/2" SCH 40 90 Degree Elbow | 316L Stainless Steel |
| 8 | 1 | 1/2" SCH 40 90 Degree Elbow | 316L Stainless Steel |
| 9 | 1 | 1/2" K04E 814.11 Half Coupling Threaded - Class 600 | 316L Stainless Steel |
| 10 | 1 | 1/4" K04E 814.11 Half Coupling Threaded - Class 600 | 316L Stainless Steel |
| 11 | 3 | 1" K04E 814.11 Half Coupling Threaded - Class 600 | 316L Stainless Steel |
| 12 | 1 | 1" K04E 814.11 Half Coupling Threaded - Class 300 | 316L Stainless Steel |
| 13 | 1 | 4" x 4" Handhole | 316L Stainless Steel |
| 14 | 1 | 1/8" THK Motor Plate | 316L Stainless Steel |
| 15 | 3 | Blowdown Tank Support Leg | 316L Stainless Steel |



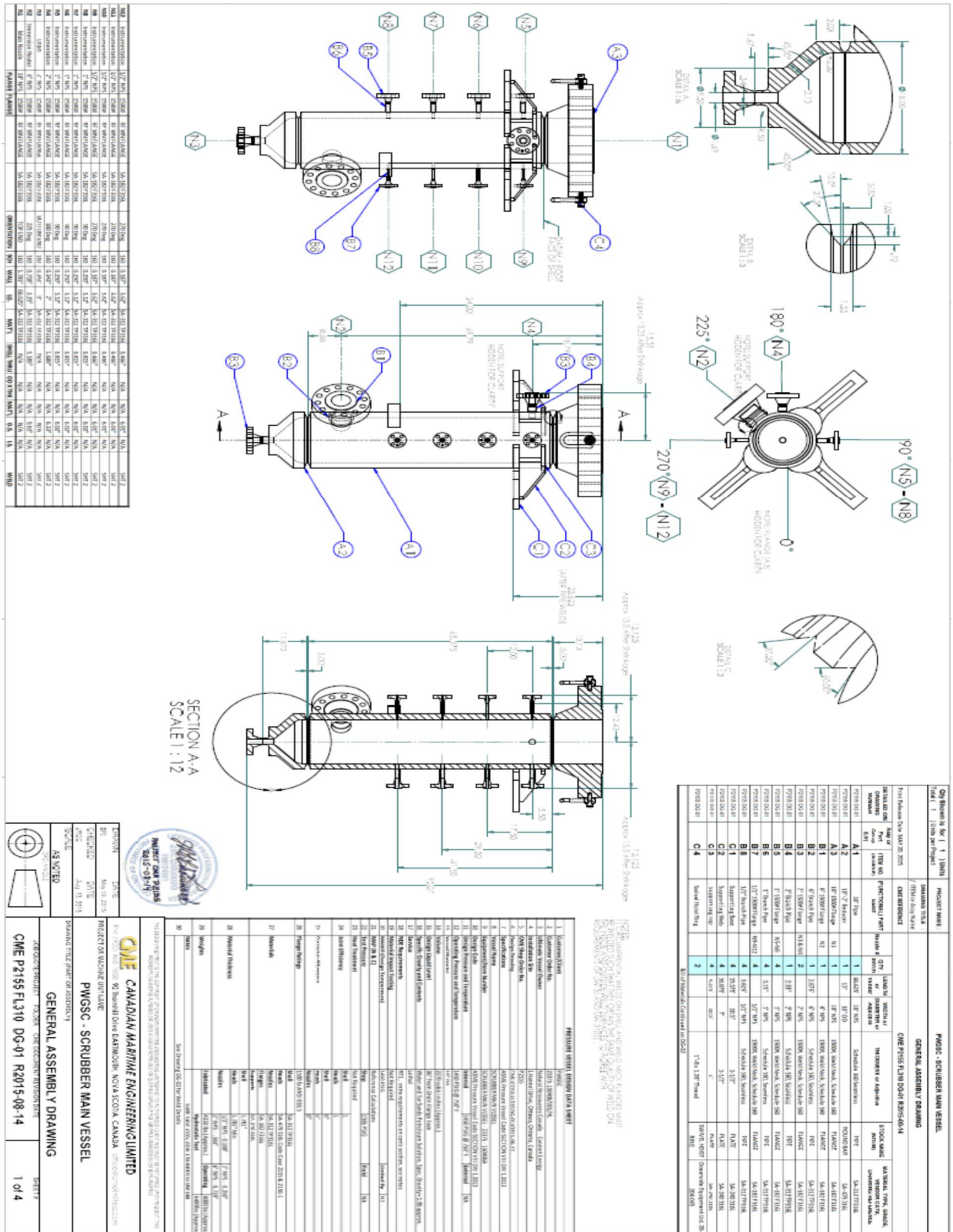
EXHIBIT 5 - SCRUBBER BOTTOM CROSS

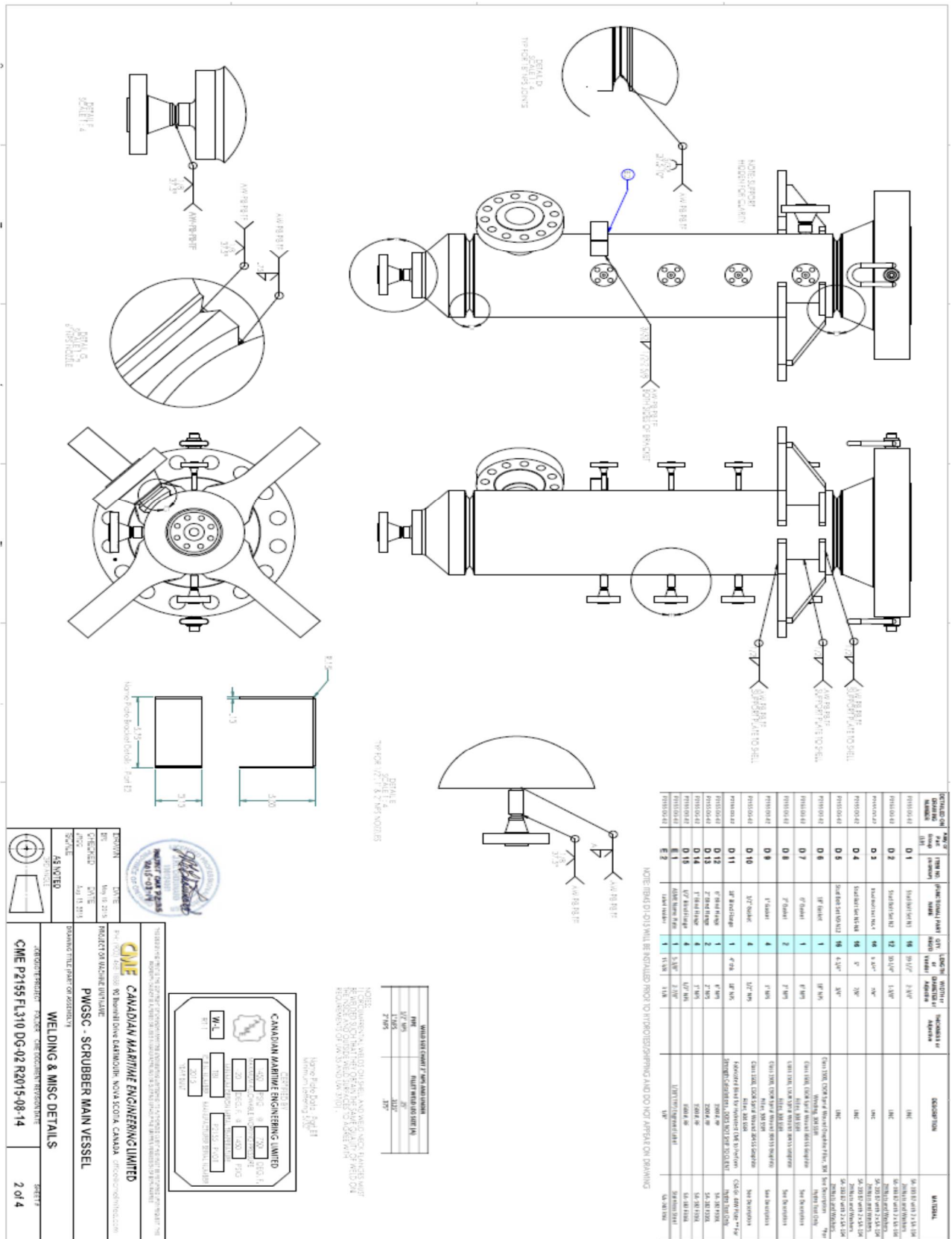


| | | | | | | |
|---|-------------|----------------------|--|---|---------|---|
| <p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF NATURAL RESOURCES CANADA. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF NATURAL RESOURCES CANADA IS PROHIBITED.</p> | | | DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ± | NAME | DATE | <p style="text-align: center;">Scrubber Bottom Cross</p> |
| | | | MATERIAL | DRAWN | | |
| | | | FINISH | CHECKED | | |
| | NEXT ASSY | USED ON | | ENG APPR. | | |
| | APPLICATION | DO NOT SCALE DRAWING | | MFG APPR. | | |
| | | | | COMMENTS: MAWP: 350°C @ 100 bar | | G.A. REV. |
| | | | | SCALE: 1:5 | WEIGHT: | SIZE A DWG. NO. SHEET 1 OF 2 |



EXHIBIT 6 - SCRUBBER MAIN VESSEL





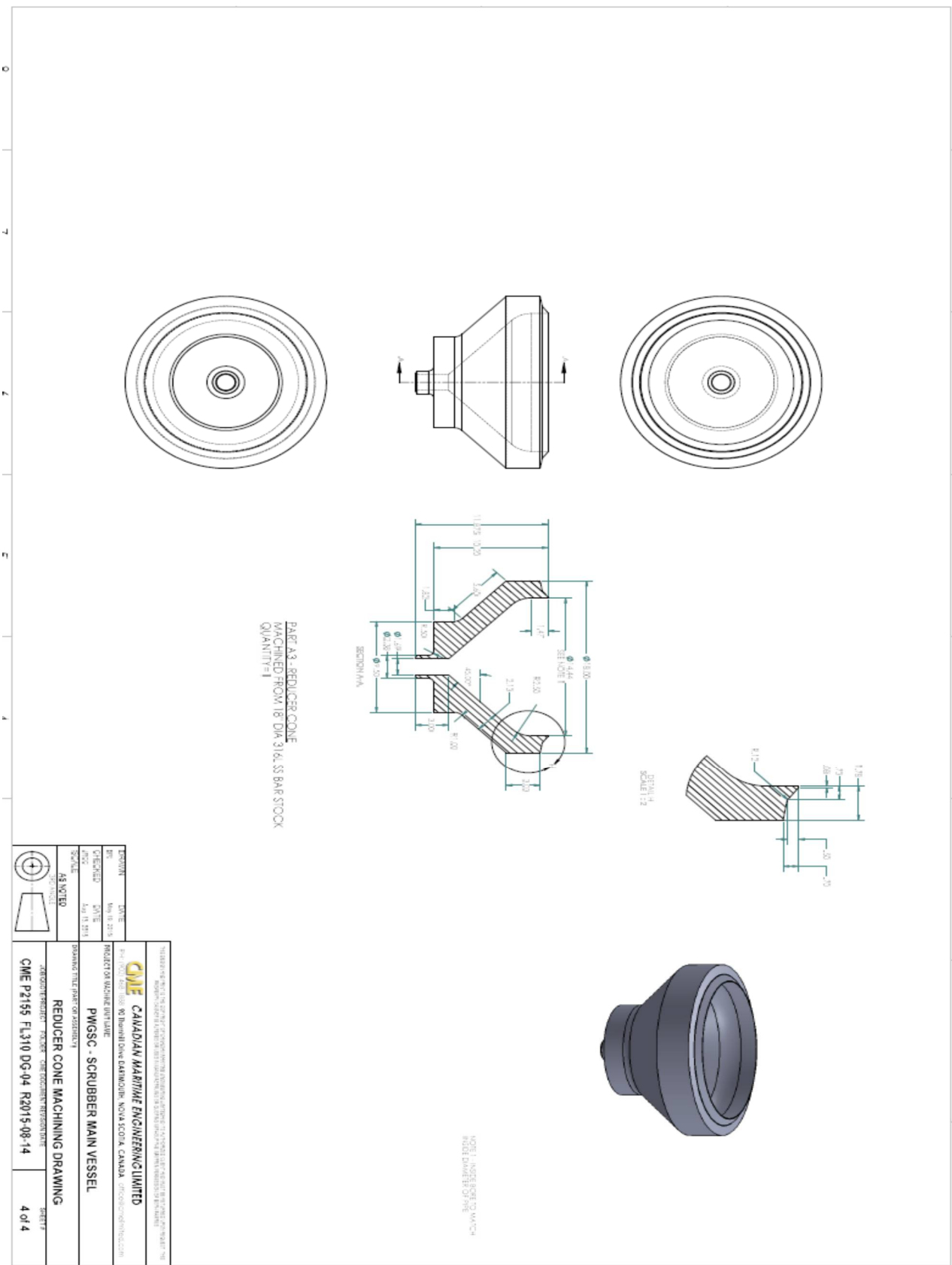




EXHIBIT 7 - SCRUBBER TOP HEAD

The drawing includes a top view with angular callouts: 0°, 45°, 60°, 90°, 135°, 180°, 225°, 270°, 300°, and 315°. A side view shows dimensions of 16.25 and 31.94. A detail view of a lug is labeled '5'. Section lines A-A and B-B are indicated.

| Item No. | Qty. | Description | Material |
|----------|------|---|-----------------------|
| 1 | 1 | NPS 18 RFWN Flange (Custom NPS 6 SCH 160 weld neck) | 316/L Stainless Steel |
| 2 | 1 | NPS 6 x 4 SCH 160 Reducing Tee | 316/L Stainless Steel |
| 3 | 1 | NPS 6 SCH 160 RFWN Flange | 316/L Stainless Steel |
| 4 | 8 | 3/8" Tube x NPS 3/8" Male Pipe Weld Connector | 316/L Stainless Steel |
| 5 | 1 | NPS 4 SCH 160 RFWN Flange | 316/L Stainless Steel |
| 6 | 1 | NPS 6 SCH 160 Pipe | 316/L Stainless Steel |
| 7 | 3 | Lifting Lug (individual load capacity: 1500 KG) | 316/L Stainless Steel |

WARRANTY AND CONFORMANCE:
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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONS ±
ANGULAR MATCH ± BEND ±
HOLE PATTERN ±
THREE PLACE DECIMAL ±
NEAREST DECIMIC
TOLERANCE FREE
MATERIAL
FINISH
DRAWING
CHECKED
BY: J.P.P.
DATE
NAME
DATE

TITLE
Scrubber Top Head

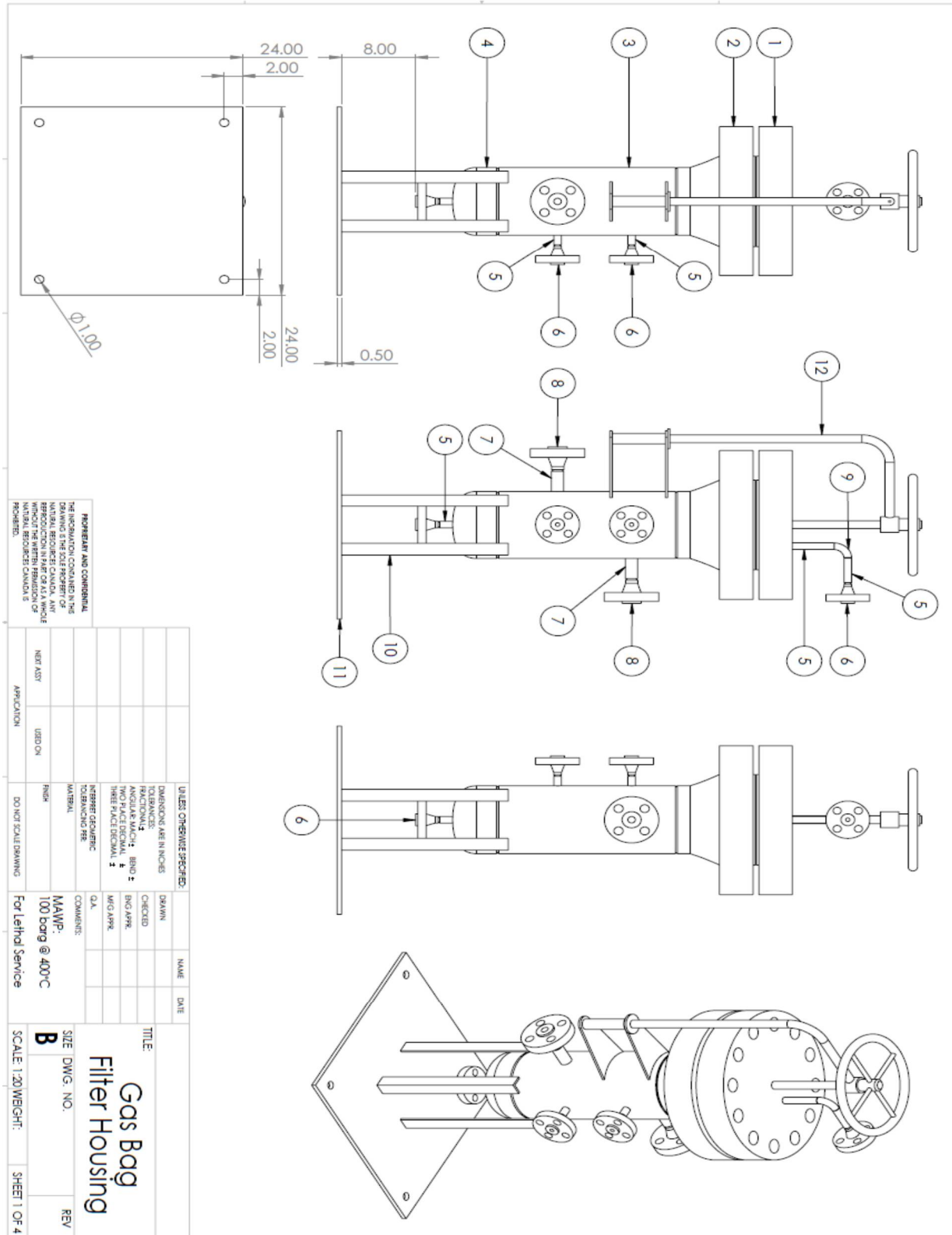
SIZE DWG. NO. REV
B

SCALE: 1:20 (WEIGHT)
SHEET 1 OF 2

APPLICATION: USED ON
NEXT ASST
DO NOT SCALE DRAWING
For Lethal Service

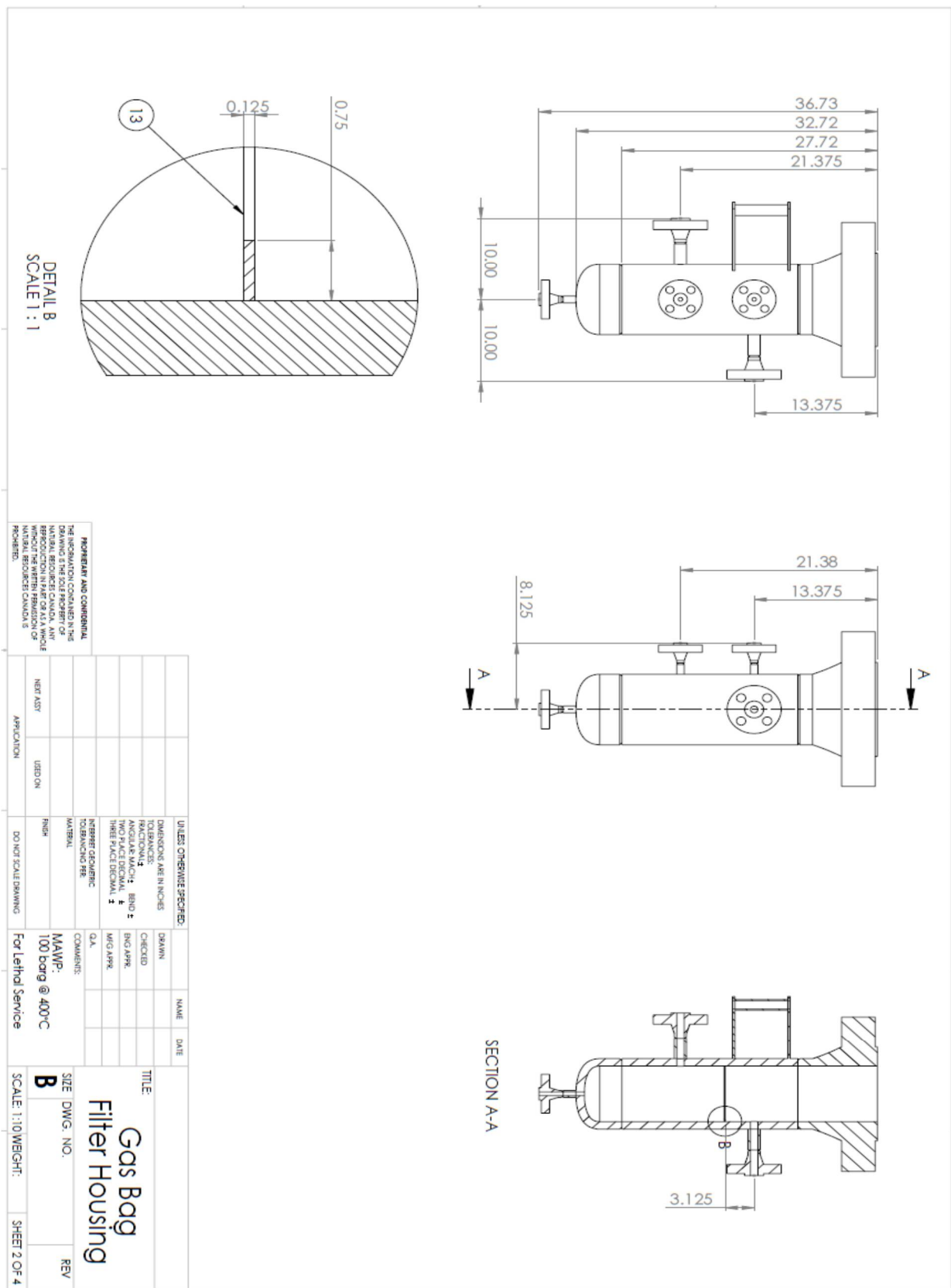


EXHIBIT 8 - FILTER HOUSING ASSEMBLY



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| UNLESS OTHERWISE SPECIFIED: | | NAME | DATE |
|-----------------------------|---------------------------|------|------|
| DRAWN | DIMENSIONS ARE IN INCHES | | |
| CHECKED | FRACTIONAL | | |
| ENG APPR. | ANGULAR MATCH | | |
| W/C APPR. | TWO PLACE DECIMAL | | |
| | THREE PLACE DECIMAL | | |
| | INTERFERE DIMENSIVE | | |
| | TO DIMENSION | | |
| | MATERIAL | | |
| | FINISH | | |
| | DO NOT SCALE DRAWING | | |
| | NET ASST | | |
| | APPLICATION | | |
| | USED ON | | |
| | For Lethal Service | | |
| | MAWP: 100 barg @ 400°C | | |
| | SIZE DWG. NO. | | |
| | SCALE 1:20 WEIGHT | | |
| | SHEET 1 OF 4 | | |
| | REV | | |
| | Filter Housing | | |





| Item No. | Description | Qty. |
|----------|---|------|
| 1 | NPS 8 1500 lb 316 SS Blind Flange | 1 |
| 2 | NPS 8 SCH 160 1500 lb 316 SS Welding Neck Flange | 1 |
| 3 | NPS 8 SCH 160 316 SS Seamless Pipe | 1 |
| 4 | NPS 8 SCH 160 316 SS Weld Cap | 1 |
| 5 | NPS 0.5 SCH 160 316 SS Seamless Pipe | 5 |
| 6 | NPS 0.5 SCH 160 1500 lb 316 SS Welding Neck Flange | 4 |
| 7 | NPS 1 SCH 160 1500 lb 316 SS Seamless Pipe | 2 |
| 8 | NPS 1 SCH 160 1500 lb 316 SS Welding Neck Flange | 2 |
| 9 | NPS 0.5 SCH 160 316 SS Seamless Short Radius Elbow | 1 |
| 10 | 316 SS Angle Bar Support Leg (Total Support Capacity: 600 Kg with Davit Arm and top flange in any position) | 4 |
| 11 | 316 SS Base Plate | 1 |
| 12 | Davit Arm Assembly (Capable of lifting top flange and rotating 360°) | 1 |
| 13 | 316 SS Filter Support Ring | 1 |

MEMORANDUM AND CONSENTUAL
 RE: INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF NATURAL RESOURCES CANADA. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF NATURAL RESOURCES CANADA IS PROHIBITED.

| | | | |
|--|--------------------|------|------|
| UNLESS OTHERWISE SPECIFIED: | DRAWN | NAME | DATE |
| DIMENSIONS ARE IN INCHES | CHECKED | | |
| TOLERANCES: | BNG APPR | | |
| FRACTIONAL: $\frac{1}{16}$ | MFG APPR | | |
| ANGULAR: MAX: 1° | Q.A. | | |
| BEND: 2° | COMMENTS: | | |
| THREE PLACE DECIMAL: $\pm .003$ | | | |
| NEAREST GEOMETRIC TOLERANCING PER MATERIAL | | | |
| FINISH | MAMP: | | |
| | 100 barg @ 400°C | | |
| APPLICATION | For Lethal Service | | |
| NEET ASBY | | | |
| USED ON | | | |
| DO NOT SCALE DRAWING | | | |

TITLE:
**Gas Bag
 Filter Housing**

SIZE DWG. NO. **B**
 SCALE: 1:10 WEIGHT: SHEET 4 OF 4
 REV



EXHIBIT 9 - QUENCH-SCRUBBER LINE (SCRUBBER END)

ITEMIZATION AND COMMENTS:
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE DRAWING OFFICE. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE TITLE. REPRODUCTION IN PART OR IN WHOLE WITHOUT THE WRITTEN PERMISSION OF THE DRAWING OFFICE IS PROHIBITED.

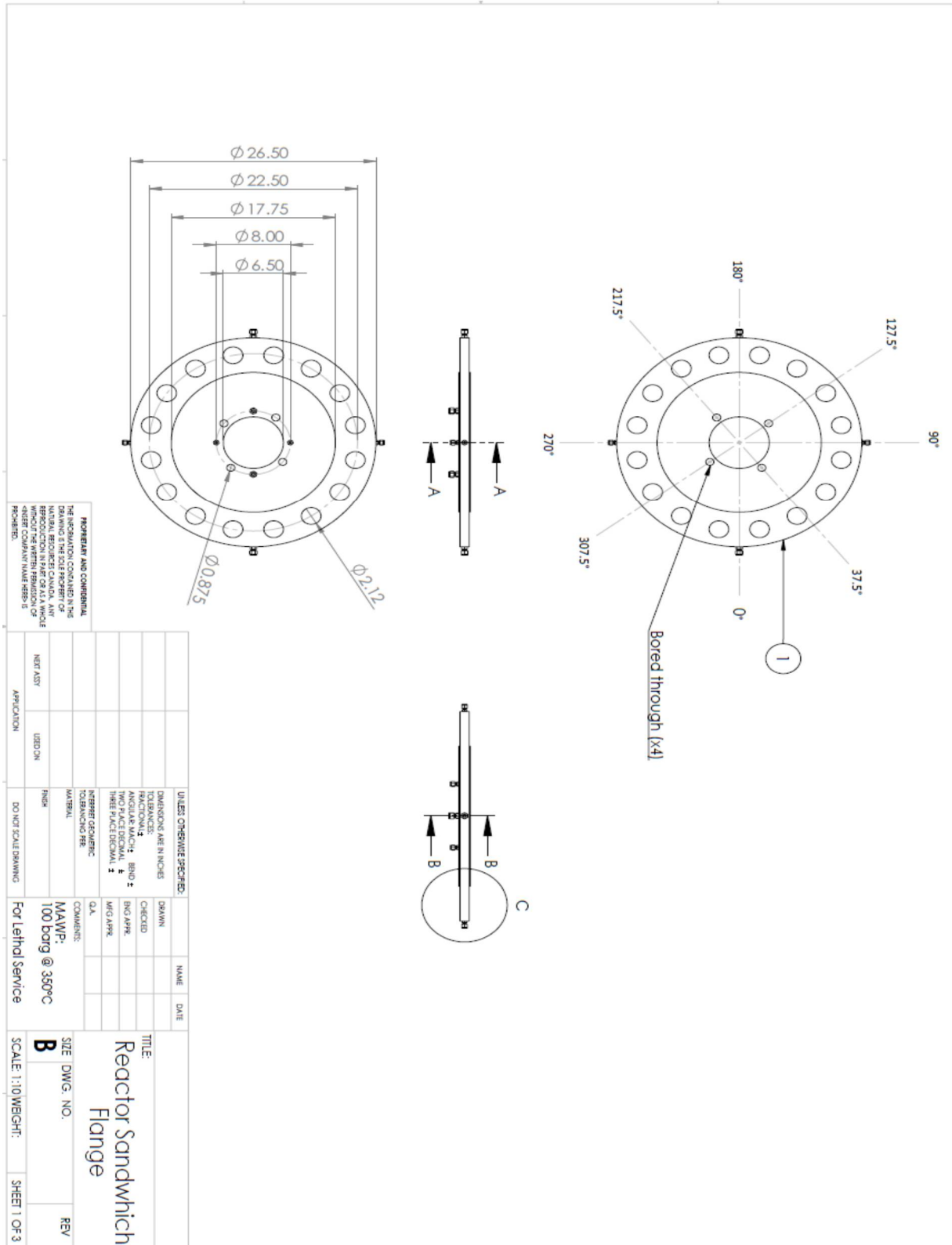
| Item No. | Description | Qty. |
|----------|---|------|
| 1 | NPS 6 1/500 lb 31 6L Stainless Steel RFWN Flange (SCH 160 Bore) | 2 |
| 2 | NPS 6 SCH 160 31 6L Stainless Steel Pipe 90° Long Radius Elbow | 1 |
| 3 | NPS 6 SCH 160 31 6L Stainless Steel Straight Pipe (6 inch length) | 1 |

| UNLESS OTHERWISE SPECIFIED: | DRAWN | NAME | DATE |
|------------------------------------|---------------|------|------|
| TOLERANCES ARE IN INCHES | CHECKED | | |
| FRACTIONAL: $\frac{1}{16}$ | BY: BNG/AYR | | |
| ANGULAR: MATCH | DATE: MFG/AYR | | |
| TWO PLACE DECIMAL: $\frac{1}{2}$ | Q.A. | | |
| THREE PLACE DECIMAL: $\frac{1}{4}$ | COMMENTS: | | |
| NUMBER DECIMAL: 3 | | | |
| TOLERANCE PER: MATERIAL | | | |
| FINISH | | | |

NEXT ASSY: USED ON: DO NOT SCALE DRAWING: For Lethal Service
 MAMP: 100 barg @ 400°C
 SIZE: DWG. NO. **B** SCALE: 1:10/WEIGHT: SHEET 1 OF 1
 TITLE: Quench-Scrubber Line (Scrubber End)



EXHIBIT 11 - REACTOR SANDWICH FLANGE





SW.7.2 Relevant Terms, Acronyms and Glossaries

HVOF - High Velocity Oxygen Fuel

NRCan - Natural Resources Canada

SSPC-SP - Society for Protective Coatings, Surface Preparation



ANNEX “B” to PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

B.1 MANDATORY TECHNICAL CRITERIA

The Mandatory Criteria listed below will be evaluated on a simple pass/fail basis. Proposals which fail to meet the mandatory criteria will be deemed non-responsive.

Bidders are advised to address each criterion in sufficient depth to permit a complete requisite analysis and assessment by the evaluation team. Proposals failing to adequately respond to the mandatory criteria may be excluded from further considerations. The technical proposal should address each of the criteria in the order in which they appear.

Bidders are advised that only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the criteria will not be considered demonstrated for the purpose of this evaluation.

The Bidder should provide complete details as to where, when (month and year) and how (through which activities/ responsibilities) the stated qualifications/experience were obtained. Experience gained during formal education shall not be considered work experience. All criteria for work experience shall be obtained in a legitimate work environment as opposed to an educational setting. Co-op terms are considered work experience provided they are related to the required services.

Bidders are also advised that the month(s) of experience listed for a project whose time frame overlaps that of another referenced project will only be counted once. For example: project one time frame is July 2001 to December 2001; project two time frame is October 2001 to January 2002; the total months of experience for these two project references is seven (7) months.

| Criterion ID | Mandatory Criteria | Proposal Page # | Pass/Fail |
|--------------|--|-----------------|-----------|
| M1 | <p>The bidder MUST demonstrate that they are able to provide a coating of Hastelloy C-276 using thermal spray application for the interior of components that are:</p> <ul style="list-style-type: none"> • 316 Stainless Steel • Carbon Steel • 316 Stainless Steel coated in Armacor[®] X80 <p>The bidder must provide proof of the application of each of these coatings in the last five (5) years on a similar sized project</p> <p><i>Hastelloy C-276 is the only coating that will be accepted. No equivalent substitutes will be considered.</i></p> | | |



| Criterion ID | Mandatory Criteria | Proposal Page # | Pass/Fail |
|--------------|---|-----------------|-----------|
| M2 | <p>The bidder MUST be capable of performing the following surface preparation, prior to thermal spray application:</p> <ul style="list-style-type: none"> • Abrasive blasting to an NACE#1 white metal finish. • Subsequent blasting of relevant surfaces with #16 virgin aluminium oxide to a 3-5 mil anchor tooth surface profile. • Post-blasting quality control inspection to ensure proper pre-coating surface has been achieved. <p>The bidder must provide proof of experience in each of the above-noted surface preparations in the last five (5) years on a similar sized project.</p> <p><i>This is the only surface preparation method that will be accepted. No equivalent substitutes will be considered.</i></p> | | |
| M3 | <p>The bidder MUST demonstrate the ability to perform the following coating application:</p> <ul style="list-style-type: none"> • Hastelloy® C-276 material applied to a thickness of 20 mils. • High Velocity Oxygen Fuel (HVOF) application method must be used. <p>The bidder must provide proof of the application of each of these coating applications in the last five (5) years on a similar sized project</p> <p><i>This is the only coating application that will be accepted. No equivalent substitutes will be considered.</i></p> | | |
| M4 | <p>The bidder MUST provide a one (1) year limited warranty, guaranteeing that all the work will be performed in a good and workmanlike manner, in accordance with recognized industry standards, and that all materials used will conform to the descriptions and specifications provided to the customer.</p> <p>The warranty MUST guarantee that, for the extent of the warranty period, the coating applied under the present scope of work will not flake or delaminate. In order for warranted repairs to be invoked, such conditions must be visible without the aid of instrumentation. Repair responsibility under this warranty will be limited to repair of these conditions, and does not cover consequential damages. Warranty coverage includes inspection of the coated area whenever the bidder is mobilized for other work at customer's location. In the event warranted repairs are necessary, the bidder will cover all costs of the repair (labor, material, equipment) except mobilization costs to job site, which will be the responsibility of Customer. Coverage under this warranty begins upon the completion date of the original work and remains valid for a period of 12 months afterward.</p> | | |



| Criterion ID | Mandatory Criteria | Proposal Page # | Pass/Fail |
|--------------|---|-----------------|-----------|
| M5 | <p>The bidder MUST also be capable of delivering the following additional requirements:</p> <ul style="list-style-type: none"> • Assign project manager on award of contract. • Provide detailed project schedule on award of contract. • Provide all manpower needed to complete work on schedule Provide coating inspection and measurement equipment. • Provide all blast media. • Provide all coating materials. • Supply all tools, air dryers, blasting and thermal spray application equipment. • Perform thermal spray application work. • Deliver a post-job coating inspection report. <p>The bidder will provide name(s) of the project manager who will be assigned to work on this project. The project manager must be a current employee of the company in good standing in a role of a project manager or equivalent position. The bidder will provide the following: schedule of work to be performed, commitment to have the necessary manpower available to complete the project on time, commitment to provide all blast media, coating materials and tools required to complete the tasks, and a commitment to perform a post-job inspection report. The bidder must provide proof of providing a post-job inspection report to a client for a similar sized project in the past five (5) years.</p> | | |

B2 FINANCIAL PROPOSAL

B2.1 TAXES AS RELATED TO BIDS RECEIVED

For Canadian-based bidders, prices/rates, as applicable, are requested to be firm (in Canadian funds) with Canadian customs duties and excise taxes as applicable **included**, and Goods and Services Tax (GST) or Harmonized Sales Tax (HST) as applicable, **excluded**;

For foreign-based bidders, prices/rates, as applicable, are requested to be firm (in Canadian funds) and **exclude** Canadian customs duties, excise taxes and GST or HST, as applicable. Canadian customs duties and excise taxes payable by the consignee will be added, for evaluation purposes only, to the prices submitted by foreign-based bidders. If the prices submitted in the financial proposal are not in Canadian Funds the exchange rate in effect on the date of bid closing will be applied for evaluation purposes only.

B2.2 FUNDING LIMITATION

NRCan has allocated a maximum of \$65,000.00 in funding for this requirement, **inclusive of a) the Price to perform the Work**; Goods and Services Tax (GST) or Harmonized Sales Tax (HST) is extra to the Funding Limitation; **any bids received in excess of this maximum funding will be automatically deemed non-responsive and will not be evaluated.**



B2.3 PRICING DETAILS TO BE PROVIDED IN FINANCIAL PROPOSAL

The Bidder hereby offers to NRCan, as requested by the Minister, to furnish all necessary expertise, supervision, materials, equipment and other items necessary to performing the work as described in the statement of work of this Request for Proposal and in accordance with the terms and conditions of the Request for Proposal, to the satisfaction of the Minister, or his or her authorized representative, for the following price(s).

Bidders must provide financial details as requested in this Annex. Proposals which do not contain pricing details as requested below shall be considered incomplete and non-responsive.

B2.3.1 Milestone Payments

Bidder tendered all-inclusive firm price to perform the work is \$_____ in Canadian funds, GST/HST excluded. Any Travel and Living Expenses, in accordance with Treasury Board Guidelines, and other miscellaneous expenses must be included in the firm price. The ceiling price tendered will be payable in milestone payments.

The Bidder will complete the milestone schedule below by providing its proposed firm milestone amounts for the work.

| Milestone # | Description of Milestone | Milestone Firm Price (GST/HST excluded) |
|--|--|--|
| 1 – Delivery Date May 31, 2016 | 1) Combustor, including bonnet, upper and lower shell assemblies (previously coated in Armacor® X80) (x1) 2) Ash handling vessel #1 (x1) 3) Ash handling vessel #2 (x1) | \$ |
| 2 – Delivery Date June 31, 2016 | 1) SS316 24" blowdown tank (x1) 2) Scrubber main vessel (x1) 3) Scrubber main vessel (x1) 4) Scrubber top head (x1) 5) Filter housing assembly (x6) 6) Quench-scrubber line (scrubber end) (x1) 7) Quench-scrubber line (quench end) (x1) 8) Reactor sandwich flange (x1) | \$ |
| | Total Firm Price | \$ |