# REGIONAL DISTRICT OF NANAIMO

## 21-087 Request for Statements of Qualifications
## GNPCC Biogas Flare Upgrade Engineering Services

## Addendum 1
## Issued: December 13, 2021

| Question Number | RFSQ Section | Clarification Question | RDN Answer |
|---|---|---|---|
| **1** | **C.** Contemplated Scope of Services subsection **v.** | Is Civil design and engineering scope expected or should this only be limited to structural as noted in "Title:" section? | The Consultant is expected to include Civil design and engineering in it's Statement of Qualifications submittal. |
| **2** | **C.** Contemplated Scope of Services subsection **v.** | Is the RDN responsible for the scope associated with the following, as required:<br>-process engineering<br>-regulatory applications<br>-dispersion modeling (if required)<br>-the controls system updates and implementation (DCS or PLC) | The Consultant is expected to perform all engineering design including the items in question. |
| **3** | **C.** Contemplated Scope of Services subsection **v.** | Further to the process engineering scope. Confirm that the RDN will provide the following:<br>• Stamped P&ID<br>• Line Sizing information (flowrate, velocity, max operating temperature, max operating pressure)<br>• Process Section of LDT stamped<br>• Process datasheets:<br>• Equipment - Flare<br>• Instrument datasheet | The Consultant is expected to perform all engineering design including the items in question.<br><br>The RDN will provide process data and constraints, and all available records of existing system to the selected Team. |
| 4 | General | Is it possible to provide a P&ID and PFD of the existing flare system? | Existing P&IDs provide little value for the gas flare. Existing gas flare information will be included in Addendum 1. |
| 5 | General | Confirm if existing PLC/DCS will have sufficient spare capacity? Especially important if reducing downtime with simultaneous operation before decommissioning the old flare | Existing flare does not communicate with the plant control system. It is a self contained system that is supplied with power. The Consultant is expected to perform PLC/DCS design as part of its scope. |

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|---|---|---|---|
| 6 | General | Confirm if a geotechnical report for the area will be made available | Existing site geotechnical information will be made available to the selected Team. The Consultant is expected to facilitate additional geotechnical assessments if required. |
| 7 | General | Confirm if accurate underground facilities / utilities information will be made available? (e.g. Existing drawing or recent ground penetrating radar scan) | Underground utility drawings will be made available to the selected Team. |
| **8** | **E.** Statement of Qualifications and Evaluation | Would the RDN consider any additional project profiles included as an appendix? | Consultants are asked to keep the project profiles to the main body of the submission, and within the overall limitation of 12 pages. |

**REGIONAL DISTRICT OF NANAIMO**
**NANAIMO WATER POLLUTION CONTROL CENTRE**
**4600 HAMMOND BAY RD.**
**NANAIMO, B.C.**
**V9T 5A8**

# Fax Cover Sheet

| | | | |
|---|---|---|---|
| **DATE:** | April 25, 1997 | **TIME:** | 11:21 AM |
| **TO:** | GLEN DUNVILLE<br>JAMES PLANT. | **PHONE:**<br>**FAX: (604)-826-0261** | |
| **FROM:** | MIKE BROPHY<br>NWPCC | **PHONE:**<br>**FAX:** | (604)-758-1157<br>(604)-758-8628 |

**Number of pages including cover sheet: 9**

**Message:-Here is the info on the Waste Gas Burner as discussed. Here is the original quote for the burner and igniter. I couldn't find any info on the flow handling capabilities, but, if you give them a range to work with I'm sure they will be able to help. If you need any more info, don't hesitate to call.**

MACTRONIC

Mactronic Ltd.
Box 621
Red Deer, Alberta
Canada T4N 5G6

Phone: (403) 342-1822
Fax: (403) 340-8560
Telex: 03-826789



June 18, 1991

Our Quote No: CDA-91-0605

Regional District of Nanaimo
P.O. Box 40,
Lantzville, B.C.
V0R 2H0

Attn: Mr. Mike Brophy

Ref: Waste Gas Burner

Mactronic Ltd. is pleased to submit the following quotation for your consideration.

**ITEM I - BIOGAS WASTE BURNER**

A) One (1) 3 inch diameter by 10 foot Overall Height Freestanding Flare Stack:

Price for Flare Stack.....$ 1,600.00

**ITEM II - FLARE IGNITION EQUIPMENT**

A) One (1) Mini 'Mac Ignitor' Head c/w 45 inch Insulprobe and Ignition Device Enclosure.....$ 2,295.00

B) One (1) 3 foot Mounting Hardware.....$ 300.00

C) One (1) Pulsating Pilot Assist.....$ 425.00

D) One (1) U.V. Monitor System.....$ 1,120.00

E) One (1) 'Mac I' Control Panel .....$ 830.00

Price for Flare Ignition Equipment.....$ 4,970.00

**TOTAL FOR ITEMS I AND II.....$ 6,570.00**

## ITEM III - OPTIONAL AND ALTERNATE EQUIPMENT

A) One (1) 2 inch diameter by 10 foot Overall Height Freestanding Flare Stack:

Price for Flare Stack.....$ **1,450.00**

B) One (1) only of Item II suitable for adaptation to your existing Waste Gas Burner.....$ **5,400.00**

## NOTES AND EXCEPTIONS

Please refer to the attached product description(s).

One original and one revised drawing are allowed in pricing. All other revised drawings will be charged out at a rate of **$ 45.00** per hour as necessary.

No Radiography, Ultrasonic Examination, Magnetic Particle / Dye Penetration Examination or Hydrostatic testing allowed for in the Flare Stack pricing.

Mactronic Ltd. shall warrant all Flare Stacks and Flare Ignition Equipment material/workmanship for a period of twelve (12) months from the date of shipping/invoicing with the exception of Ignition Transformers which shall be warranted for a period of 90 days from shipping/invoicing. Mactronic warranty provides replacement of defective parts on a FOB Red Deer, Alberta basis only. Incidental and consequential damages are not included or covered. The foregoing warranty is in lieu of all other warranties expressed or implied.

Two (2) Owners and Maintenance Manuals included in pricing.

Installation and delivery can be quoted upon request.

This quotation is based on the technical data you have supplied and any deviation from this information may require equipment and/or price alterations.

**TERMS AND CONDITIONS**

Delivery from receipt of Purchase Order:
1 week for general arrangement drawings.
2 weeks for customer approval.
3 weeks for fabrication after drawing approval.

Terms of Delivery: F.O.B. Red Deer, Alberta.

Multiple Ignition System discount is available.

3 - 5 units: 5%
5 - 10 units: 7.5%
11 - 20 units: 12%
21 or more units: negotiable

All prices are quoted in Canadian Funds.

GST and Provincial Sales Taxes: Included ___ Not Included _X_

Terms of Payment: Net 30 Days upon invoicing.

Quote valid for 30 days.

Thank you for the opportunity to quote on this project. If you require any further information or have any questions, please feel free to contact the undersigned at your earliest convenience.

Regards

Phil Dade
Mactronic Ltd.

CC: Robert Kinzer, R.C. Kinzer & Associates (403) 262-6191
Sales Representative for Mactronic Ltd.

## *** PRODUCT DESCRIPTION ***

### MINI 'MAC IGNITOR' HEAD

The mini **'Mac Ignitor'** was originally designed to provide a reliable ignition source for burners in heaters, treaters, etc. Since then Mactronic Ltd. has expanded its use to igniting large diameter Flare Pits, small diameter Biogas Flare Stacks and Offshore Hydocarbon Burners. The mini **'Mac Ignitor'** works in conjunction with the Pilot Assist System.

Complete with:

- Two sch 80, 316L stainless steel venturi probes up to 11 inches (27.94 cm) long. Venturi probes are hollow to provide self cooling and self cleaning.

- Mini **'Mac Ignitor'** insulator 3 1/2 inch (8.89 cm) dia by 9 inch (22.86 cm) long constructed of Dielectric Strength Insulator molded inside a 316 stainless steel body.

- 3 1/2 inch (6.35 cm) diameter Insulprobe. The Insulprobe length varies depending on each application.

- Ignition Device components installed in a CSA Enclosure 3 / NEMA 3, weatherproof enclosure.

The mini **'Mac Ignitor'** can be used with any of the Mactronic Control Panels. Any interconnecting cable between the Ignitor and Control Panel is by others.

Power requirement: 120V A.C. / 60 Hz or 12V D.C. / 12 Amp

Refer to Drawing No's 90-067-M and 90-070-MM

***** PRODUCT DESCRIPTION *****

**'MAC I' CONTROL PANEL**

Complete with:

- CSA Enclosure 3/ NEMA 3 weatherproof enclosure.
- Corrosion resistant, spring loaded Hand-Off-Auto key switch.
- Plug in adjustable timers for adjusting the length between arcs (Arc Sequence) and the length of arc (Arc Duration). Arc sequence has been factory preset at 30 seconds, Arc Duration at 1 second.

Power requirement: 120 V.A.C./ 60 Hz Power.

Power cable from control panel to **'Mac Ignitor'** Head by others.

Control Panel Stand by others.

## *** PRODUCT DESCRIPTION ***

## MINI 'MAC IGNITOR' PILOT ASSIST SYSTEM

The pilot flame is intermittent and works in conjunction with the Arcing sequence of the mini **'Mac Ignitor'** and associated Control Panel. The pilot flame is approximately 18 inches (45.72 cm) to 24 inches (60.96 cm) long depending on the pilot gas regulator setting. Recommended setting is 15 lbs in - 3 lbs out. At this setting, the Ignitor will use approximately 15 SCFH.

Complete with:

- **Mactronic** Pilot Nozzle 316 stainless steel.
- 1/8 inch (.3175 cm) dia. sch 80, 316 stainless steel pilot piping and associated fittings.
- Electrically activated solenoid, rated for continuous duty.

Interconnecting Regulator, Guage and Pilot lines are extra.

## PRODUCT DESCRIPTION

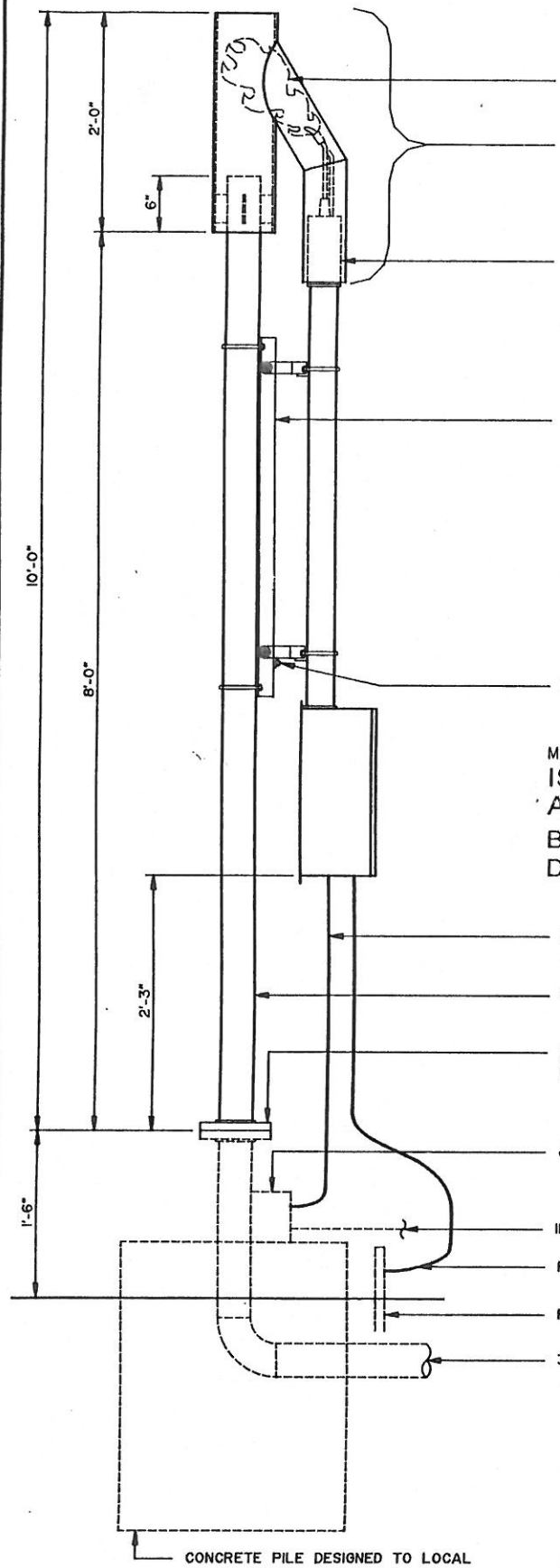
## MINI 'MAC IGNITOR' U.V. MONITOR SYSTEM

U. V. Monitor System automatically monitors the arc and/or the pilot flame. Should the U. V. Scanner fail to sight arc or pilot flame within a pre-set period of time, alarm contacts will be activated.

Complete with:

- U.V. Scanner Eye and associated wiring within the Ignition Device Enclosure.
- 3/8 inch (.9525 cm) dia sight tube within the mini **'Mac Ignitor'** Head.
- U.V. Controller and Base. Can be mounted within the Ignition Device Enclosure or a separate weatherproof enclosure.
- U.V. Alarm Contacts (NO-C-NC)

Power requirement: 120V A.C./ 60 Hz Commercial Power




PULSATING PILOT FLAME

BIOGAS WASTE BURNER (304 SS)

MINI 'MAC IGNITOR' HEAD
c/w IGNITION TRANSFORMER,
PULSATING PILOT SYSTEM &
U.V. MONITOR SYSTEM

'MAC' TRACK c/w MOUNTING BOLTS

ROLLER STOP ASSEMBLY

MACTRONIC LTD.
ISSUED FOR APPROVAL
BY J. Berglund
DATE 06/27/91

FLAME RETARDANT POWER CABLE

3" FLARE STACK (304 SS)

3" 150# RFSO FLANGE (304 SS)
(MATING FLANGE BY OTHERS)

JUNCTION BOX (BY OTHERS)

INTERCONNECTING POWER CABLE TO CONTROL PANEL (BY OTHERS)

FLEXIBLE PILOT GAS HOSE (BY OTHERS)

PILOT GAS SUPPLY (BY OTHERS)

3" VENT LINE (BY OTHERS)

CONCRETE PILE DESIGNED TO LOCAL SOIL CONDITIONS (BY OTHERS)

MACTRONIC LTD.
BOX 621
RED DEER, ALBERTA, CANADA
T4N 5G6
TEL: (403) 342-1822
FAX: (403) 340-8560
TELEX: 03-826789

| | |
|---|---|
| CLIENT | MACTRONIC LTD. RED DEER, ALBERTA |
| TITLE | BIOGAS FLARE SYSTEM MINI 'MAC IGNITOR' |

| NO. | REVISION | DWN. BY | APP. BY | DATE |
|---|---|---|---|---|
| 0 | ISSUED FOR APPROVAL | PJD... | | 90-3-26 |

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|---|---|---|---|
| DRAWN BY: | PJD... | DATE: | 90-3-26 |
| APP. BY: | | SCALE: | 1"=1'-0" |

| REFERENCE NO. | DWG NO. | REV. |
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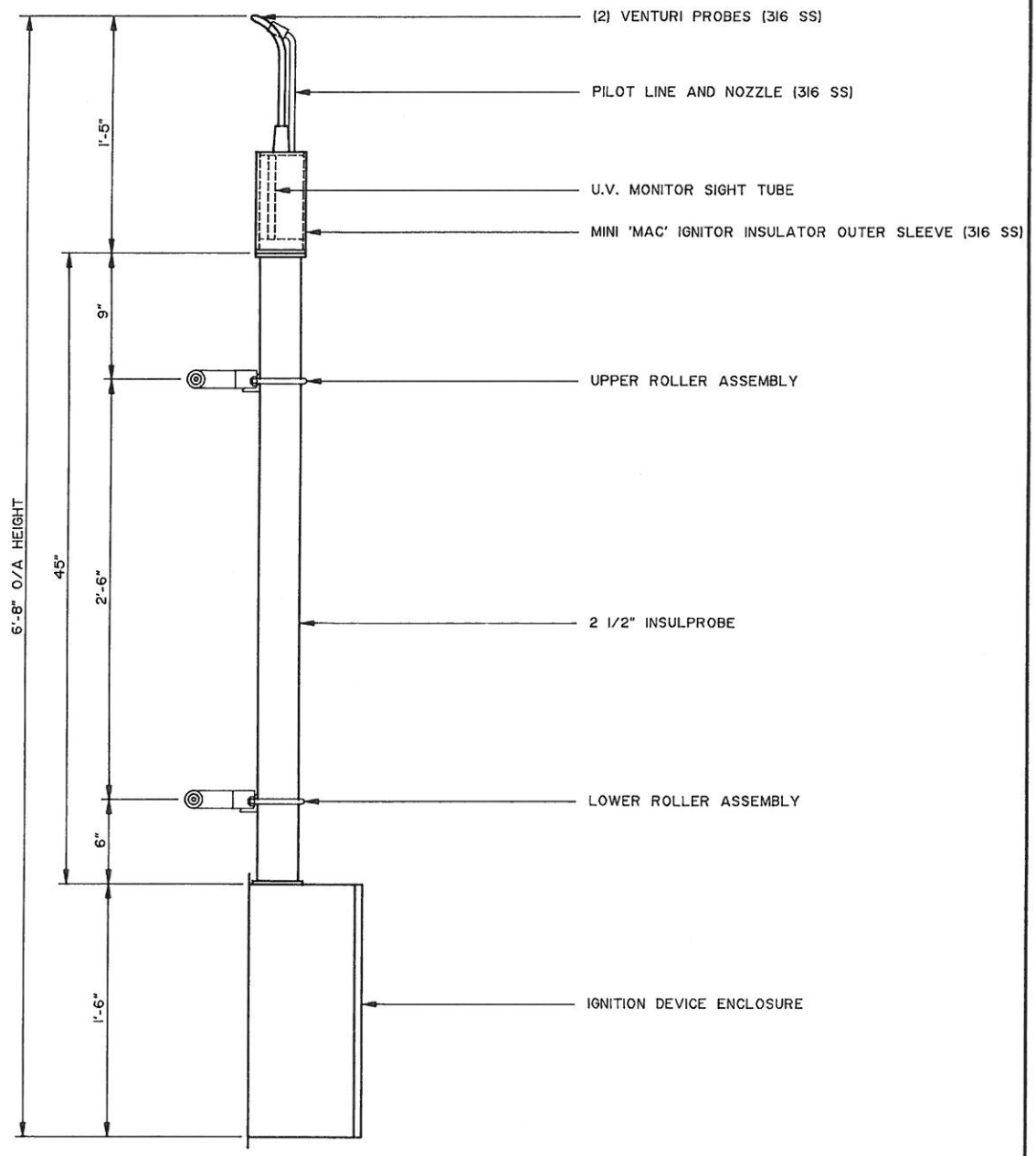


MACTRONIC LTD.
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| | | | | | | |
|---|---|---|---|---|---|---|
| CLIENT | MACTRONIC LTD. RED DEER, ALBERTA | | | | | |
| TITLE | MINI 'MAC IGNITOR' HEAD 45" LONG INSULPROBE | | | | | |
| | | | | DRAWN BY: | PJD... | DATE: 90-3-23 |
| 1 | GENERAL REVISIONS | PJD... | | 90-6-21 | APP. BY: | SCALE: 1 1/2"=1'-0" |
| 0 | ISSUED FOR APPROVAL | PJD... | | 90-3-23 | REFERENCE NO. | DWG NO. / REV. |
| NO. | REVISION | DWN. BY | APP. BY | DATE | — | 90-067-MM / 1 |

End of Addendum 1