

Mayor
Alice Ruby

Manager
Rose Loera



Dillingham City Council
Holly Johnson
Chris Maines
Bob Himschoot
Keggie Tubbs
Tracy Hightower
Paul Liedberg

MEMORANDUM

Date: March 3, 2014
To: Mayor Alice Ruby and City Council Members
From: Rose Loera, City Manager
Subject: Mid-Year Budget

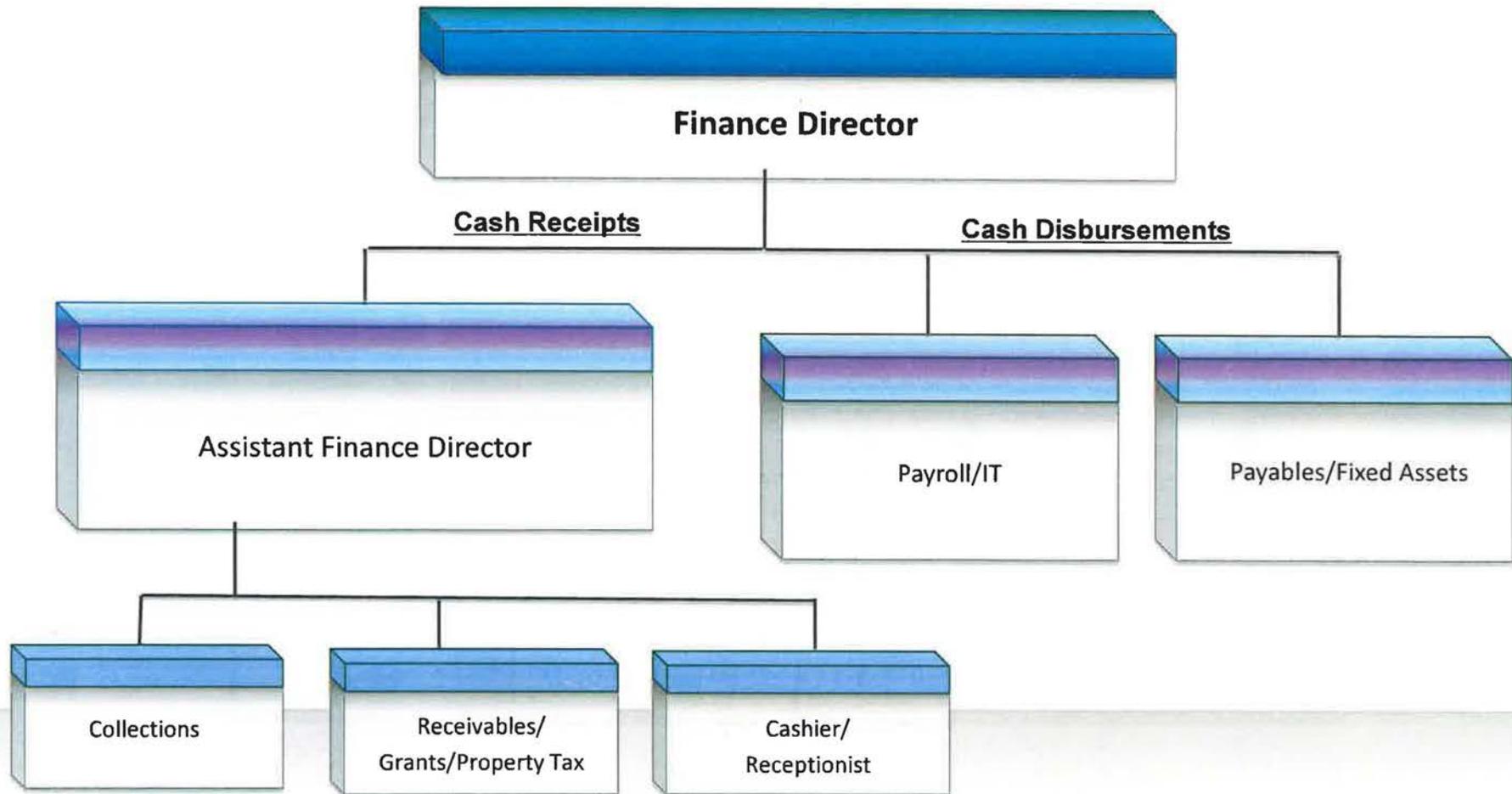
On February 24, 2014, the Finance and Budget Committee (F & B) reviewed the justification for the two and a half positions that were included in the 2014 mid-year budget.

The F & B found the justification acceptable as long as the added positions in future budget years does not bring the General Fund into a negative balance.

Attachments: Organizational Chart and Supporting Documentation – Assistant Finance Director
Job Description and Supporting Documentation – Planning Department Clerical Assistant
Job Description and Supporting Documentation – Administrative Assistant/DMV Clerk

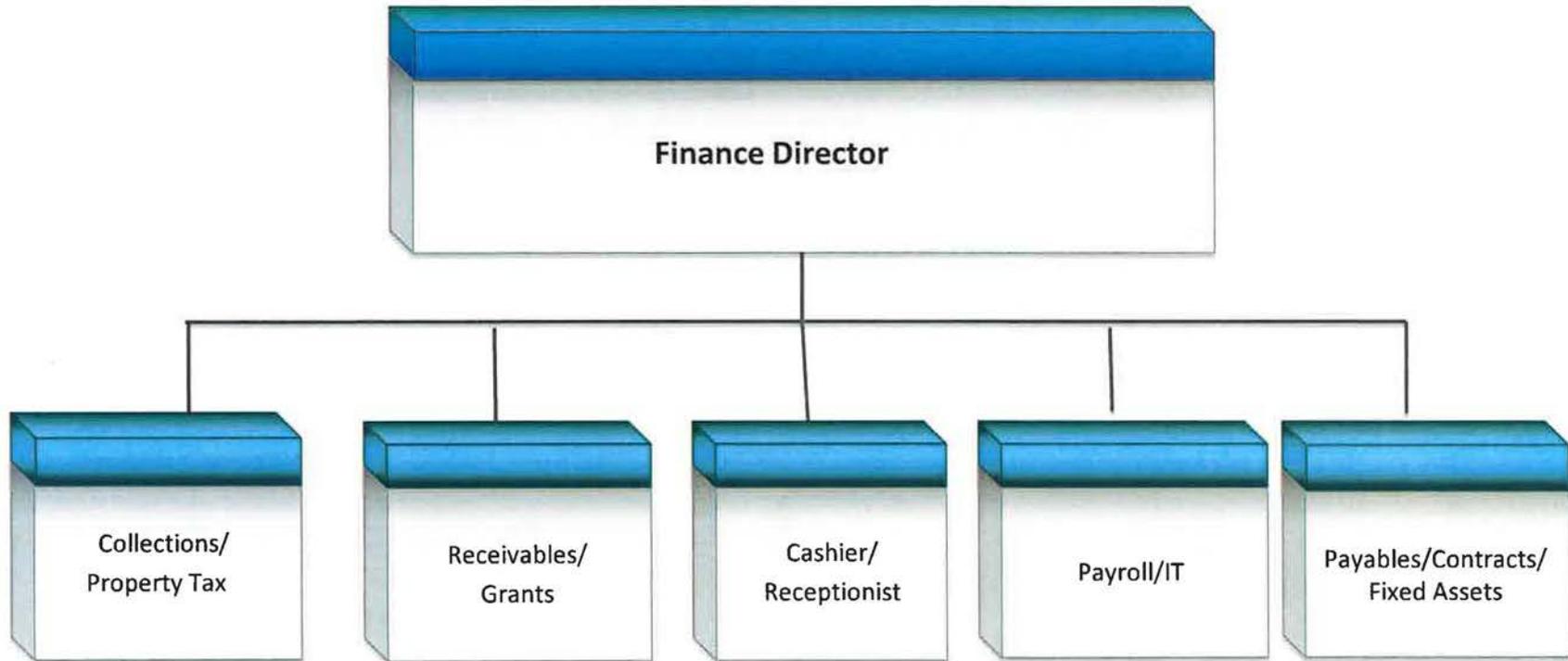
*Our Vision. By 2015 to have an infrastructure that supports a sustainable, diversified and growing economy. * We will take a leadership role and partner with others to achieve economic development and other common goals. * We will develop a high quality City workforce to serve the community. * We will promote excellence in education.*

Finance Department Proposed Structure



- Staff position with higher level of accounting knowledge and experience needed
- Auditors & Contract Accountant noticed current staff are overloaded
- Need additional spreading out of duties to allow staff to take vacations and not work long hours, thus possible reduction of overtime
- Current structure only allows for reactive rather than proactive management
- Finance Director to retire in two to four years

Finance Department Current Structure



Finance Department Staff Proposed Task Assignments

<u>Finance Director</u>	<u>Assistant Finance Director</u>	<u>Payroll/IT</u>	<u>Collections</u>	<u>Receivables/Grants /Property Tax</u>	<u>Payables /Fixed Assets</u>	<u>Cashier/ Receptionist</u>
<ul style="list-style-type: none"> ➤ Supervise Asst Finance Director, Payroll/IT, and Payables ➤ Plan, prepare, and organize workloads and staff assignments, expedite workflow, and make staffing decisions ➤ Review all data entry for payroll and payables. ➤ Reconciliation of all bank accounts to include the checking account and six investment accounts. ➤ Plan, direct, coordinate and evaluate the budgetary, revenue collection, disbursement, investment, asset management and risk management of the City ➤ Compile annual budget of the City ➤ Monitor the of the budget city-wide, keeping Manger informed of budgetary issues requiring his/her input or ➤ Establish and maintain cash controls ➤ Attend city council meetings ➤ Assure municipal funds are appropriately handled and invested for maximum return. 	<ul style="list-style-type: none"> ➤ Supervise, Collections, Receivables, and Cashier ➤ Daily cash drawer review ➤ Review and approve all adjustments to customer accounts, vendors and employees. ➤ Attend Collections committee meetings to assure continued collection of past due accounts ➤ Assist with preparation for annual audit. ➤ Capital Grant & Loan applications and reporting ➤ Fill out loan questionnaires for funding of capital projects ➤ Oversee reconciliation of general ledger balance sheet accounts related to receivables and grants ➤ Preparation of all periodic financial reports as required by law/regulations ➤ Complete annual insurance policy exposure questionnaire 	<ul style="list-style-type: none"> ➤ Bi-Weekly Payroll, which includes review of timesheets, calculating hours, editing of various hourly rates for unions. ➤ New Employee Orientation ➤ Research payroll/benefit related questions ➤ Assist with payroll and fringe benefits related information for annual budget preparation ➤ General Ledger reconciliation of payroll related liabilities ➤ Act as backup for Purchasing & Payables ➤ Quarterly Payroll Reports, such as 941s, unemployment, yearly W-2s, W-3s and payroll-related surveys ➤ W-2s ➤ Act as IT Liaison with Tekmate 	<ul style="list-style-type: none"> ➤ Stay informed about city' Accounts Receivable including type and amount of debt owed. ➤ Maintain a list of accounts in arrears and list for denial of services ➤ File claims in small claims court, working with legal assistance when necessary ➤ Monitor compliance with sales tax ordinance ➤ Coordinate with City Clerk to file tax liens and foreclosures ➤ Coordinate with DMV and Corrections for Title 47 fees ➤ Utilize Assignment of Rights forms to allow customers to pay with PFD ➤ Assist with customers coming to City Hall to pay bills ➤ Act as backup for Cashier/Receptionist 	<ul style="list-style-type: none"> ➤ Daily Bank Deposits ➤ Process all payments that come in mail ➤ Maintain billing system, files corrections and adjustments for utility billing, dock, harbor and landfill ➤ Process business license applications ➤ Process annual Property Tax Assessment and billing forms ➤ Answer taxpayer questions and work with Assessor ➤ Facilitate grant process by preparing non-capital grant requests initiated by each department ➤ Prepare non-capital grant reports ➤ Prepare general ledger entries in connection with non-capital grant reporting ➤ Act as backup for Cashier/Receptionist 	<ul style="list-style-type: none"> ➤ Maintain accounts payable files, digital and physical ➤ Reconcile invoices with purchase orders, receiving documents freight bills etc. Verify coding ➤ Enter purchase orders daily ➤ Print checks weekly, get signatures and mail checks. ➤ Research payables related questions ➤ Update COD Asset Worksheets ➤ Maintain Postage Meter ➤ Distribute revenue and expense report to Department Heads bi-weekly ➤ Act as backup for answering phones as needed ➤ Reconcile General Ledger to AP monthly ➤ Process 1099s ➤ Act as backup to payroll 	<ul style="list-style-type: none"> ➤ Answer phones and interact with public ➤ Daily payments to include walk ins and mail ➤ Open and distribute mail to appropriate City hall staff ➤ Direct citizens to appropriate staff based on questions and requests ➤ Update address files for utility billing, miscellaneous accounts receivable and business licenses ➤ Filing all related deposits, reports, invoices, statements, etc. ➤ Maintain archive spreadsheet for storage of finance department records



Memorandum

To: Rose Loera, City Manager
CC: Carol Shade, Finance Director
From: Jody Seitz, Planning Director
Date: 2/27/2014
Re: Proposal for Planning Department Assistant

The Planning Department anticipates that there will be additional demands on the Planner's time in the coming year from a new permit system, new subdivision ordinances, which will lead to additional subdivisions, several ADOT projects, as well as updates to several of the City's plans. Part-time clerical assistance can help meet these additional and increasing demands.

Planning Department Assistant Responsibilities:

The Planning Department Assistant position would be skilled clerical assistance for 20 hours per week to assist the Planning Director with correspondence, organizing, and maintaining the department records. The PD Assistant would function as the Planning Commission secretary, per DMC 2.68.120, help organize planning meetings, attend meetings and prepare the minutes of meetings and workshops. The Planning Department Assistant would also prepare documents as assigned; work with the Planning Director to implement procedures and organizational tools such as databases of Planning Department records, and other duties as assigned.

Pay: Level VI: \$18.64 – \$19.78/hr or \$19,386 – \$20,541

The Planning Department will provide a desk and a laptop computer and other office supplies as needed. Other than the financial compensation, there are no additional costs for this position.

Desirable qualities:

The applicant would be attentive to detail; able to organize and maintain a variety of records, prepare word documents and spreadsheets, take minutes, and be willing to listen to the meeting tapes as needed, take direction, and have a sense of humor.

Skills: Word processing, spreadsheets, Internet. Microsoft Outlook, MS Word and Excel required. Basic knowledge of Adobe pro, and PowerPoint desirable.

Need for the position:

The need for this position is evident in the hours worked by the Planning Director. On 22 of 26 pay periods she worked more than the normal 80 hours. Of those 22 periods, in 14 of them she worked more than 10 additional hours per pay period, sometimes 20 hours or more, and worked 17weekends. See attached spreadsheet.

The fall was especially demanding. The Planning Commission took on vetting and code research for the subdivision ordinance changes requested by the public, without the advantage of having paid consultants. The changes to the subdivision code are somewhat comparable in scope and long term consequences to those required by the material sites ordinance. The Planning Director researched the City's subdivisions, roads, their status, and access, interviewed numerous professionals and held many additional weekend and evening meetings to give the Planning Commission the additional knowledge to address the issue.

Benefits to the City of additional staff in the Planning Department:

1. More staff to handle the record keeping of increased demands on the department.
2. Planning Commission secretary for attending meetings and taking minutes.
3. Improved transparency and trust in the Commission and the City's process:

At the most recent meeting of the Alaska Chapter of the American Planning Association, commissioners stated that having a Planning Director prepare the minutes of the meetings could be seen as a conflict of interest.

The City of Dillingham may have felt this way early on because in 1973 and again in 1986 these sections of code were included in the Dillingham Municipal Code.2.68.120:

- A. The commission shall be provided office space suitable for its needs and adequate to file its journals, resolutions, records, reference materials, correspondence and maps, plats and charts, all of which shall constitute public records of the city.
- B. The commission shall be furnished secretarial assistance at each meeting to assist in preparing its minutes, journals and resolutions, and as required to prepare its correspondence under the direction of the commission presiding officer and commission clerk. (Ord. 26 § 3 (part), 1973; Ord. 86-8 § 1, 1986.)

The City may also anticipate the following once the person has been trained and knows the layout and function of the department:

- Backup staff when the Planning Director is not available.
- Improved timeliness with non-compliance issues which will increase trust in the City's willingness to enforce its code.
- Improved follow through with organizations, such as BBNA and the Windmill Hill Speed zone group; or the BB Regional Infrastructure Coordinating Group
- Update of the office files, improved accessibility of records such as minutes, resolutions, project plans, as-builts, maps, plats and permit records will benefit City workers; agencies and the public.
- Well-maintained records of the department's transactions are important for continuity of processes, projects, permitting, and planning as well as the credibility of the City in the community.
- Potentially more time for finding funding for the City's projects.

To sum up, I sincerely believe that permanent part time skilled clerical assistance in this department will help the City serve its community better.



Job Description

Job Title	Planning Department Clerical Assistant	Department	Planning
Reports to	Planning Director	Salary Level	VI
Classification	Overtime Non-Exempt	Approved By	<i>Rose Loera, City Manager</i>

I. General Description

This position is responsible for providing clerical support to the Planning Director.

II. Reasonable Accommodations

To perform this job successfully, an individual must be able to perform each essential job duty and physical demands satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

III. Essential Job Duties

1. Prepare ads, public notice postings and mailings.
2. Disseminate public information and announcements as requested by the Planning Director.
3. Receive telephone calls and visitors, answer inquiries, schedule appointments, and make travel arrangements.
4. Organize meetings requested by the Planning Director, scheduling meeting rooms, mailing out meeting notices and teleconference information. Set up equipment as needed for meetings.
5. Attend Planning Commission meetings and prepare minutes of the meetings.
6. Process purchase orders, check requests, and travel authorization forms.
7. Assist in cataloguing and scanning documents as requested by the Planning Director.
8. Assist in preparing correspondence, finalizing letters, and developing address lists for public notice mailings.
9. Assist Planning Director in organizing and maintaining planning department files including: subdivisions, permits, roads naming and vacation files.
10. Assist the Planning Director with providing address information to the public.
11. Take queries and information from the public for the Planning Director as needed.
12. Provide public with information, maps, and permit application forms.
13. Maintain regular office hours.
14. Other duties as assigned.

IV. Knowledge, Skills and Abilities

Knowledge:

This position requires proficiency in the following areas:

1. Basic computer skills.



Job Description

2. Basic office organization, filing practices.
3. Local knowledge of city streets and subdivisions or land management a plus.
4. Some knowledge of civics or government a plus.

Skills and Abilities:

This position must demonstrate the following skills and abilities:

1. Excellent interpersonal skills.
2. Proficient in computer applications such as Word, Outlook, Excel, Adobe Acrobat and Internet.
3. Analytical and problem solving skills.
4. Decision making skills.
5. Excellent verbal and listening skills.
6. Attention to detail and high level of accuracy.
7. Very effective organizational skills.
8. Excellent written communications skills.
9. Respectful of citizens and staff.
10. Work with co-workers, outside agencies, and vendors in a professional, congenial and courteous manner.
11. Maintain the confidentiality of non-public information acquired during service as a City employee.

V. Work Environment and Physical Effort

Office Environment. This position is located in a busy, open area office. Must possess mobility to work in a standard office setting and to use standard office equipment, including a computer; strength to lift and carry materials weighing up to 20 pounds; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. The employee must also deal with a wide variety of people on various issues.

VI. Education and/or Experience

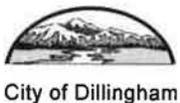
1. High school diploma or General Equivalency Degree (GED). Some college education preferred.
2. Clerical experience desirable.
3. Demonstrate reliability and understanding of confidentiality.

VIII. Supervisory Responsibility

None

IX. Scope of Employment

Regular, half-time employment, non-exempt position. Position is subject to overtime upon request of supervisor.



City of Dillingham

Job Description

X. Acknowledgment

I understand the duties of this position as detailed in this job description.

Employee: _____ Date: _____

This job description is accurate and has been reviewed with the above employee.

Supervisor: _____ Date: _____

Mayor
Alice Ruby

Manager
Rose Loera



Dillingham City Council
Holly Johnson
Chris Maines
Bob Himschoot
Keggie Tubbs
Tracy Hightower
Paul Liedberg

MEMORANDUM

Date: February 11, 2014
To: City Manager Rose Loera
Dillingham City Council
From: Chief Dan Pasquariello
Subject: New Administrative Assistant/DMV Clerk position

The Department of Public Safety is requesting the addition of an Administrative Assistant/DMV clerk. This position would be responsible for providing administrative support to all divisions in the department, as well as providing line support and back-up for the DMV Clerk. The work hours dedicated to each specific role of the position would vary based on the needs of the department.

This position will be funded equally by the following Public Safety divisions:

- (1) DMV – this division is partially funded by the State of Alaska. The City receives a percentage of between 30%-100%, depending on the type of transaction, that are made at the Dillingham office.
- (2) Corrections – this division is funded by a grant from the State of Alaska. This year we received a substantial increase in funding, over the amount we had budgeted for the division.

The reasons we are requesting the position are as follows:

Back-up for DMV clerk

- When our DMV is closed the public has to either do their title/registration business on the internet, or travel to Anchorage for road tests or identification cards and driver's licenses.
- We have only had one DMV Clerk. Whenever the clerk would go on vacation the public would get upset. This caused the clerk to self-impose limitations on her vacation time. This resulted in an excessive accumulation of her personal leave

*Our Vision. By 2015 to have an infrastructure that supports a sustainable, diversified and growing economy. * We will take a leadership role and partner with others to achieve economic development and other common goals. * We will develop a high quality City workforce to serve the community. * We will promote excellence in education.*

bank, of which she had to use 4 hours each week on days when the office was closed to the public to avoid losing it per City Personnel policy.

- With only one clerk there are times of high customer volume when the sole clerk must turn people away at the door.
- When our only clerk went on medical leave this completely shut down the DMV office. This caused mild public panic and a scramble on the part of the City administration to return this service to the public.
- This new position would enable uninterrupted, continuous DMV operations. When the primary DMV clerk is on vacation, or sick, the new person would be able to assume the duties of the position.
- This new person would also be able to assist the primary clerk in times of high customer demand.

Administrative Assistance for Public Safety

- The Dept. of Public Safety had an administrative assistant position in the past but the position was cut in FY13 to help reduce budgetary shortfalls.
- The duties of the position were assimilated into other supervisory positions, most predominately the Dispatch Supervisor and Chief of Police.
- The assumption of these duties by others takes time away from their main duties causing them to be less effective with their primary responsibilities.
- An administrative assistant would help with smooth and efficient clerical and support operations for the department.

*Our Vision. By 2015 to have an infrastructure that supports a sustainable, diversified and growing economy. * We will take a leadership role and partner with others to achieve economic development and other common goals. * We will develop a high quality City workforce to serve the community. * We will promote excellence in education.*



Job Description

Job Title	Administrative Assistant/ DMV Clerk	Department	Public Safety
Reports to	Chief of Police	Salary Level	VII
Classification	Overtime Non-Exempt	Approved By	<i>Rose Loera, City Manager</i>

I. General Description

This position is responsible for performing routine clerical support duties for all divisions in the department.

This position is also responsible for performing DMV clerk duties on an as needed basis, to include the issuance of driving licenses, identification cards and documents, vehicle registrations and title transfers for motor vehicles, trailers, motorcycles, boats and snow machines.

II. Reasonable Accommodations

To perform this job successfully, an individual must be able to perform each essential job duty and physical demands satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

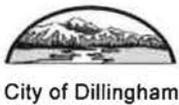
III. Essential Job Duties

Administrative Assistant

1. Provide administrative support to other divisions within the department.
2. Maintain both electronic and physical record management systems.
3. Open, distribute, and send out Public Safety Department's mail.
4. Order and maintain needed supplies for department.
5. Insure integrity of Department records in data entry procedures.
6. Responsible for petty cash, verifying balance, preparing petty cash reimbursement requests and records.
7. Record all incoming cash receipts applying account numbers and verifying accuracy of application of receipts.
8. Interact with general public; answering questions, accepting payments, providing forms, etc.

Department of Motor Vehicles (DMV)

1. Assist the DMV clerk during periods of high customer volume and fill in for DMV clerk during vacations and medical leave.
2. Provide computer, oral, and written verification of applicant information, restriction codes, license actions, title and registration information. This involves extensive exchanges of information with similar inter/intra state agencies.
3. Collect related licensing fees.
4. Administer written, optical and audio tests related to operator licensing. Schedule and administer road tests.



Job Description

5. Close a daily batch and record it to a deposit. Generate in ALVIN a commission worksheet and fax a copy to DMV Fiscal. Deposit into a bank account next day.
6. Assist in preparing and submitting weekly Batch Film Report.
7. Assist in completing a quarterly inventory report and fax to the DMV warehouse.

IV. Knowledge, Skills and Abilities

Knowledge:

This position requires proficiency in the following areas:

1. Knowledge of basic financial record keeping procedures, computer equipment, and filing systems.
2. Must be able to operate personal computer, including word-processing and spreadsheets, database software, and 10-key calculator.
3. Operation of office machines including camera and printers.
4. General secretarial duties: typing, transcribing, filing, statistical analysis, and process Department mail.

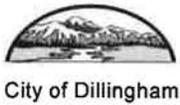
Skills and Abilities:

This position must demonstrate the following skills and abilities:

1. Must have minimum general experience using computer word processing programs, (i.e., word and excel).
2. Possess effective oral and written communication skills.
3. Ability to work independently.
4. Ability to complete tasks and reports within required dates.
5. Interact with the public in a courteous, helpful and professional manner.
6. Work with co-workers, outside agencies, and vendors in a professional manner.
7. Maintain the confidentiality of information acquired during service as a City employee.
8. Ability to remain calm and professional in frequently stressful situations with clients.
9. Must pass a criminal history background check for required security clearance for access to the Alaska Public Safety Information Network (APSIN) system.

V. Work Environment and Physical Effort

This position is located in an open office area, in a standard office setting. Employee must be familiar with standard office equipment, including a computer. Performing the duties of this job, the employee will be required to use hands and fingers dexterously to operate office equipment. The employee may also have to do some light lifting of supplies and materials from time to time. The employee is faced with constant interruptions, may have to manage a number of tasks at one time, and will need excellent organizational and time and stress management skills to complete the required tasks.



Job Description

VI. Education and Experience

Education:

1. High school diploma or General Equivalency Degree (GED)

Experience:

1. Secretarial, retailing, or experience in direct customer service to the public is desirable.

VII. Certification and Training

1. National Incident Management System (NIMS) compliance training and certification, within 60 days of employment.

VIII. Supervisory Responsibility

None

IX. Scope of Employment

Regular, full time employment, week days, non-exempt position. Position is subject to overtime upon request of supervisor.

X. Acknowledgment

I understand the duties of this position as detailed in this job description.

Employee: _____ Date: _____

This job description is accurate and has been reviewed with the above employee.

Supervisor: _____ Date: _____



Proposal #214007-00

February 7, 2014

City of Dillingham

141 Main Street (or P.O. Box 889)

Dillingham, Alaska 99756

Attn.: City Clerk (Janice Williams)

via email: cityclerk@dillinghamak.us

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

We are offering our customized Pennram™ model TRU-1300 thermal reduction unit rated **1300 lbs/hr** of 8,500 btu/lb mixed wastes. The diesel fired thermal reduction unit may be operated up to 24 hours per day or as limited by loading and unloading wastes. The system is equipped for manual feed and manual ash removal. The thermal reduction unit combustion chambers are sized as based on information supplied by the client of 11 US tons per day and 15 lbs/cu ft density and allowing for 70% fill. Total gasifier chamber volume is 2100 cu ft with internal dimensions of approximately 78" wide, 135" high, and 184" in depth. A manually operated hinged, gasketed, and interlocked door with 78" x 90" opening allows access into one end of the gasifier chamber. Burner set points, modulation ranges, and combustion air inputs are infinitely user adjustable using the HMI touchscreen interface with automated limits to optimize performance.



The control system is fully automatic and safety interlocked. A provision is provided for placing padlocks on all access doors. The system start switch and gasifier and oxidizer burner switches require a key to operate. The thermal reduction unit door(s) are equipped with an electrical interlock that will prevent the thermal reduction unit from starting unless the doors are closed. This interlock device will immediately shut off the thermal reduction unit if any door is opened during the cycle. Burners are full modulating for maximum fuel efficiency and stable operation. Waste reduction efficiency is 95%-99% minimum. Fuel is diesel and electric will be supplied to match the local power grid, three phase power is required. A small propane tank is needed for intermittent gas pilot use. Propane is only used for 15 seconds per burner cycle.

The thermal reduction unit system will be 100% assembled, wired, piped, and dry run tested to the extent possible in our plant prior to shipment. The system is lined with refractory rated

City of Dillingham

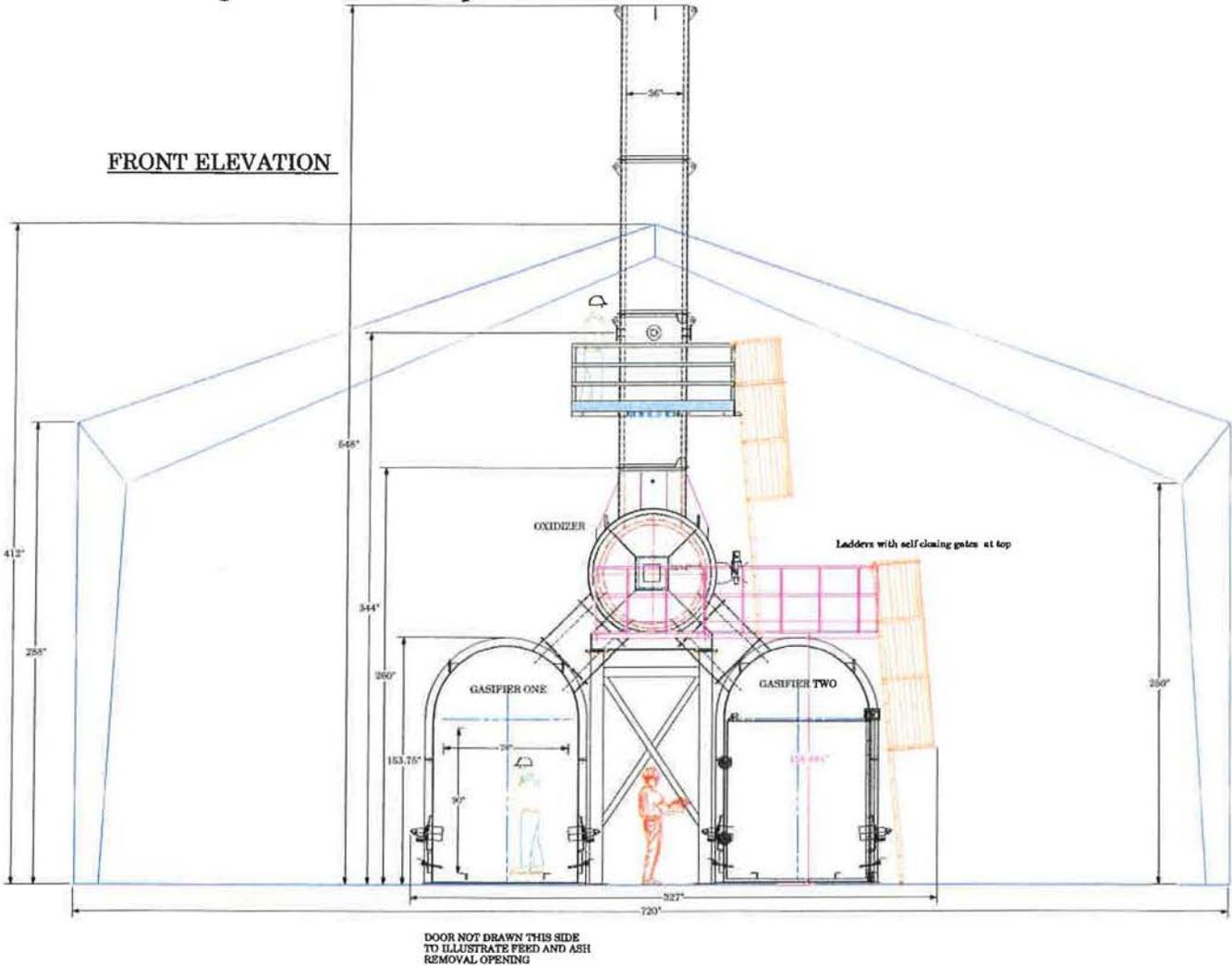
Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 2 of 14

for service to 1650°C and backed by 1” of board insulation. The surface temperature may be in the 250°F range after extended operation of the thermal reduction unit.



1.0 Schedule of Equipment to be supplied:

- 1.1 (2x) Thermal Reduction Unit gasifier chambers, 1 level hearth.
- 1.2 Thermal Reduction Unit oxidizer chamber with 1 second residence time at 1800°F. structural support, galvanized service platform & ladder.
- 1.3 PLC based control system with simple user adjustable on screen controls.
- 1.4 Thermal Reduction Unit manual feed load/unload door, interlocked to start up, burner, comb. air.
- 1.5 Stack with “EPA” test ports, platform, and ladder, outlet elevation 45.5 ft. above grade. Ladders have an automatic gravity gate at the point of platform entry that closes after pass thru.
- 1.6 Optional freight services.

Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 3 of 14

1.7 Optional factory installation assistance services, start up & customer training.

2.0 Equipment specification

2.1.0 Thermal Reduction Unit GASIFIER x 2 units:

2.1.1 Two(2) 120,000-580,000 btu/hr North American full modulating diesel burners with individual control setpoints . Turndown ratio of burners is 10:1 minimum overall. Each burner is equipped with a spark ignited gas pilot. The pilot is proven by means of UV scanning in concert with Honeywell™ electronic flame control and supervision. The fuel train shall be equipped with main fuel valve, redundant fuel valve, fuel pressure regulator and manual ball valve.

Combustion air shall modulate closed when burner is not in use. Pilot air & atomizing air remains active during operation of gasifier chamber while burner is on or off. Burner generally set to fire at 350,000 average btu/hr. Primary burner interlocks:

- a. System on.
- b. Primary temperature burner operating limits.
- c. Primary chamber access door proven closed.
- d. Primary burner off-on-auto switch in on or auto position.



North American
Manufacturing Company, Ltd.

DUAL-FUEL™ BURNERS for High Temperature Applications

Bulletin 6425

Ref: Bulletin 6425

July 2004

6425 Burners are designed specifically for higher temperature operations such as forge furnaces, ceramic kilns, metal and glass melters, heat treat furnaces, etc. They are the high temperature version of North American's 6422 Fire All Burner, one of the most widely used industrial burners in the world.

6425's are particularly appropriate for applications that run at both high and low temperatures - an example is a batch type kiln in which early parts of the cycle run below 1200 F and require free oxygen in kiln atmosphere for raw material to process properly. Then frequently the product must "soak" at temperatures above 2000 F. 6425 Burners handle this duty with ease due to their excess air flexibility and their construction that withstands radiant heat.

The standard burner is limited to operation with gaseous fuels and distillate oils. The standard materials of construction are not suitable for operation with heavy oils.



6425 Burner Complete shown with optional (recommended) Sensitrol Oil Valve.

Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 4 of 14

2.1.2 Combustion air piped to the gasifier chamber at a modulated maximum rate of **650** scfm air at 2" w.c. static pressure and piping equipped with a modulating butterfly damper to connected to the primary combustion air manifold which is actuated by a Honeywell™ modulating motor to provide hi & lo pressure operation of the combustion air supply

Primary combustion air interlocks:

- a. Primary temperature operating limits.
- b. Primary chamber access door proven closed.
- c. Post load delay timer.

2.1.3 Combustion air manifold x 2 sides with a total 28 combustion air input jets. Combustion air jets shall be embedded in the wall of the primary chamber. Air jets can be cleaned externally with thermal reduction unit on line or off line.

2.1.4 Chamber heat release shall not exceed 15,000 btu/ cubic foot/ hour.

2.1.5 Approximately 1,050 cu ft chamber volume.

2.1.6 78" w. x 90 h. load/ unload opening.

2.1.7 86.5" x 98.5" x 6.25" hinged, interlocked refractory/ ceramic blanket lined access door.

2.1.8 127 sq. ft. overall hearth area.

2.1.10 Approximate overall chamber dimensions: 203" length x 102" width x 154" height.

Approximate weight 54,000 lbs. This chamber will be fabricated and shipped in two(2) pieces.

2.1.11 Chamber lined with 5" 2550°F refractory and 1" 1900° board insulation. Refractory shall be Harbison-Walker - MC-25 plus.

2.1.12 Shell constructed of 3/8" ASTM A-36 plate steel. **Internally coated acid barrier.**

Door shell is 1/4" plate, Door frame is 3/4" plate.

2.1.13 Sandblast prep and high(1200°F.) temperature, silicone based primer and finish.

2.1.14 Refractory fastened to shell with 304 stainless steel anchors.

2.1.15 Two (1) air cooled observation ports.

2.1.15 A 1/2 hp diesel pump with pressure controls and motor controls is included. A two pipe system to the fuel tank is suggested. Burners pre-piped to fuel manifold at factory.

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 5 of 14

2.2.0 Thermal Reduction Unit Secondary Combustion Chamber:

2.2.1 One (1) 4,200,000 btu/hr North American™ full modulating diesel gas burner. Turndown ratio of burner is 5:1 minimum. Burner is equipped with a spark ignited gas pilot. The pilot is proven by means of UV scanning in concert with Honeywell™ electronic flame control and supervision. The fuel train shall be equipped with main fuel valve, redundant fuel valve, fuel pressure regulator and manual ball valve. Combustion air shall modulate closed when burner is not in use. Pilot air & atomizing air remains active during operation of oxidizer chamber while burner is on or off.

Secondary burner interlocks

- a. System on.
- b. Shutdown mode timer.
- c. Secondary temperature burner operating limit.
- d. Secondary burner off-on-auto switch in on or auto position.
- e. Remote burner switch in on position.
- f. Start up pre-purge interlock.

2.2.1 One(1) 10 hp high pressure combustion air blower driven to generate 820 scfm of combustion air at 31" w.c. static pressure to supply combustion air to the fuel burners; And One(1) 5 hp low pressure combustion air blower driven to generate 3400 scfm to supply combustion air to the gasifier and oxidizer combustion air manifolds; And equipped with (8) modulating butterfly damper which is actuated by (8) Honeywell™ modulating motors.

2.2.2 Internal combustion air manifold with total 60 combustion air input jets. Combustion air manifold and air jets shall be embedded in the refractory lining of the secondary chamber. The combustion air manifold is a minimum of XX square feet of heating surface and employs wasted energy lost through the secondary chamber shell to preheat secondary combustion air. The combustion air manifold shall be fabricated of 1/4" minimum A36 steel plate. Air jets shall be arranged for optimum combustion air turbulence. Air jets shall be fabricated of 1-1/4" schedule 80 pipe minimum.

2.2.3 Chamber equipped with 24" x 24" clean out door opening with door.

2.2.6 277 cu. ft. secondary chamber volume for 1.0 second residence time.

2.2.7 One second nominal secondary chamber residence time @ 1800°F.

2.2.8 Dimension: 81" O.D. x 152+/-" L. with structural support.

2.2.8 Secondary chamber will be fabricated in one piece with approx. weight of 25,000 lbs.

Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 6 of 14

2.2.9 Chamber lined with 5" 2550°F refractory and 1" 1900° block insulation. Refractory shall be Harbison-Walker - MC-25 plus.

2.2.10 Shell constructed of 3/8" ASTM A-36 plate steel.

2.2.11 Sandblast prep and high(1200°F.) temperature, silicone based primer and finish.

2.2.12 Refractory fastened to shell with 304 stainless steel anchors.

2.2.13 One (1) air cooled observation ports.

2.2.14 Service platform with OSHA type ladder and railing, hot dip galvanized finish.

2.4.0 Thermal Reduction Unit Stack:

2.4.1 Dimensions: 36" I.D. x 42" O.D. x 45.5 ft above grade to outlet

2.4.2 Lined with 2.75" 2600°F insulating refractory.

2.4.3 Shell constructed of 1/4" carbon steel plate and flanged on four(4) foot intervals.

2.4.4 Flanges bolted by (24) 1/2-13 x 1-1/4" A325 structural bolts.

2.4.5 Sandblast prep and high(1200°F.) temperature, silicone based primer and finish.

2.4.6 Service ladder from oxidizer platform, OSHA type cage and OSHA type service platform with hot dip galvanize finish provided to access stack test ports.

2.6a Electric Motor Schedule:

2.6a.1 Combustion Air Blower HP 10 hp

2.6a.2 Combustion Air Blower LP 5 hp

2.6a.1 Fuel Pump 1/2 hp

2.6.0 Thermal Reduction Unit PLC & Control System:

2.6.1 Nema 12 enclosure.

2.6.2 PLC with touchscreen control system with user programmable controls for burner modulation, primary air limit, primary burner limit, primary chamber combustion air, high limit, secondary chamber combustion air, Secondary chamber burner.

2.6.3 Control of load limits, modulating air dampers, modulating of secondary burner, modulating of primary burner, Honeywell flame controls, on screen digital temperature controls and lockouts, combustion air blower control, safety and operating interlocks.

2.6.4 Panel includes power distribution breakers, motor starters, display modules, control transformers, annunciator, digital charge timer.

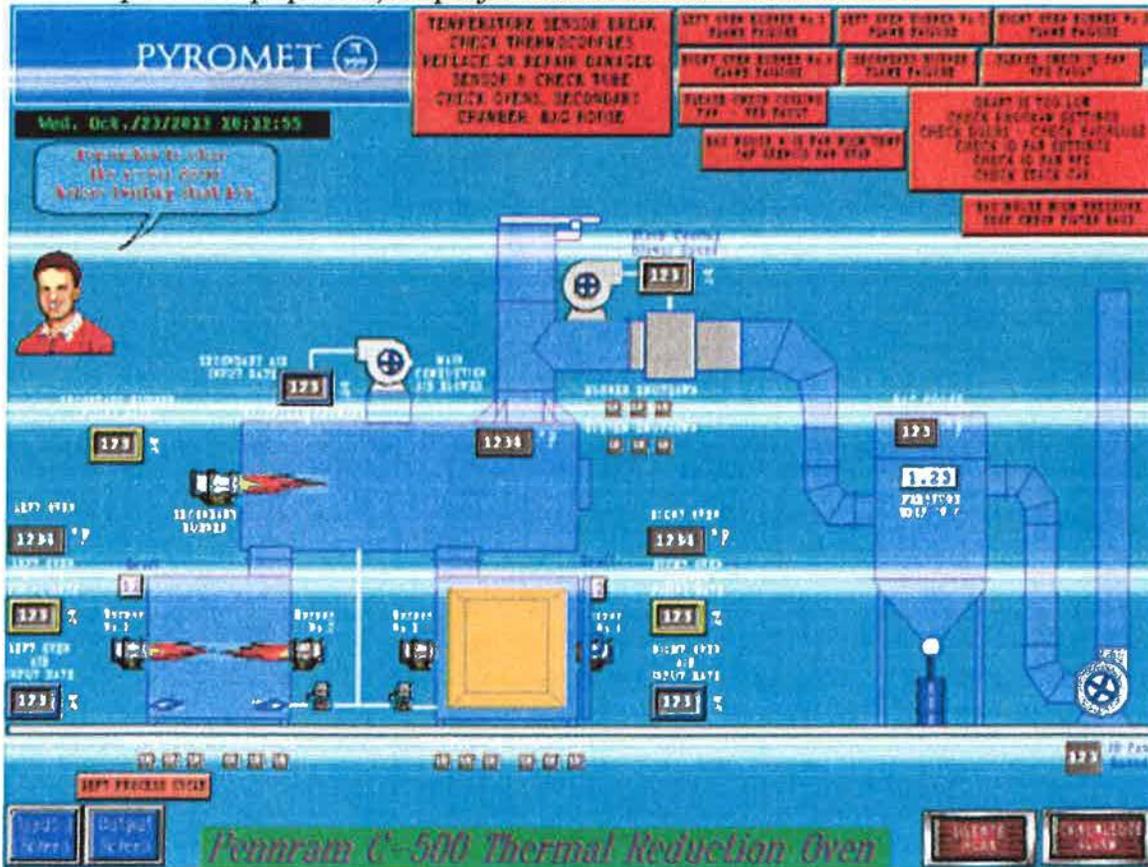
Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

2.6.5 High and low voltage components isolated.

2.6.6 Control Cabinet Switches: Some switches are only provided with the appropriate optional equipment.

- 2.6.6.1 System Start (key lock switch)
- 2.6.6.2 System Emergency Stop
- 2.6.6.3 Gasifier Burner on/off/auto (key lock switch) x 4
- 2.6.6.4 Gasifier combustion air on/off/auto x 2
- 2.6.6.5 Oxidizer Burner on/off/auto (key lock switch)
- 2.6.6.6 Combustion Air Blower on/off/auto x 2
- 2.6.6.7 Horn Silence
- 2.6.6.8 Annunciator Test
- 2.6.6.9 Primary Burner Reset x 4
- 2.6.6.10 Secondary Burner Reset

2.6.7 Control Cabinet Pilot Lamps: Some lamps are only provided with the appropriate optional equipment, displayed on interactive touch screen.



Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 8 of 14

2.6.7.1 Primary Burner Fail - *alarm* (1) for each burner

2.6.7.3 Secondary Burner Fail - *alarm* (1) for each burner

2.6.7.4 Load

2.6.7.5 Do Not Load

2.6.7.6 Primary Burner Demand x 2

2.6.7.7 Primary Burner Main Fuel Valve x 2

2.6.7.8 Secondary Burner Demand

2.6.7.10 Secondary Burner Main Fuel Valve

2.6.7.11 Purge Cycle

2.6.7.12 Preheat Cycle

2.6.7.13 Reduction Cycle

2.6.7.14 Cooling Cycle

2.6.8 Control Cabinet Displayed Data, digital except as noted: Some display units are only provided with the appropriate optional equipment.

2.6.8.1 Primary Temperature x 2

2.6.8.2 Secondary Temperature

2.6.8.3 Time remaining to the process cycle (user adjustable)

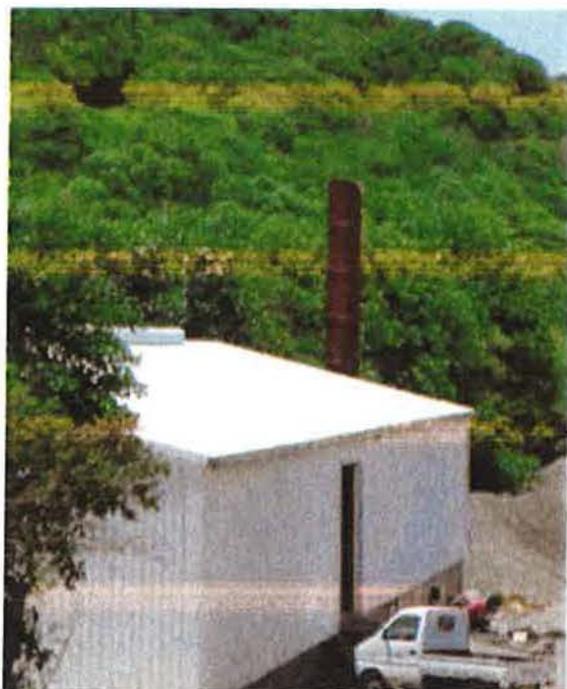
2.6.9 Alarm lamps sound audible alarm, if audible alarm is silenced, lamp remains lit until condition is satisfied(corrected). If second, third, etc., additional alarms occur after silencing, audible alarm will activate. Each lamp alarm will activate audible alarm regardless of status of other alarm conditions.

2.6.10 Honeywell flame monitoring equipment.

2.6.11 IEC rated motor controls.

2.6.12 Circuit breakers for each motor and control circuit.

2.6.13 All control system components shall employ non-volatile memory, memory shall be retained one year minimum with electrical power shut off.



2.9.15.0 Emission Performance corrected to 7% O₂:

Smokeless and odorless operation.

2.9.15.1 Particulate ≤ 0.08 g/dscf

2.9.15.2 CO ≤ 40 ppm_{dv}

2.9.15.3 Visible emission average less than 3% (not visible).

3.0 Miscellaneous:

3.1 Five sets of operator & maintenance manuals to be provided.

3.2 **Warranty.** Seller warrants and represents that the Equipment will (a) perform in conformance

with the specifications set forth herein, (b) shall be suitable for the incineration of waste in the capacities set forth in the specifications, (c) while handled and operated in accordance to manufacturer's specifications will meet or exceed the environmental, safety laws and regulations and emissions parameters presented herein. (d) be free of material defects for a period of one (1) year from start up or two (2) years from shipping date, whichever occurs first, and (e) not violate the intellectual property rights of any third party. Defects in workmanship must be documented to the factory within thirty calendar days of arrival of equipment. Defects in workmanship are repaired by the factory or factory subcontractor at the expense of the factory. Replacement of defective parts is limited to replacement of the part itself excluding the costs of transportation and installation of the part. Consumables (thermocouples and exposed burner components) are not covered under this warranty. Routine wear & tear of refractory liner and moving parts, are not a part of this warranty.

4.0 Delivery: as of February 7, 2014

4.1 Drawings 4-6 weeks ARO,

4.2 Queue hold 6-8 weeks, (or during permit period)

4.3 Equipment delivery 16-20 weeks FOB after drawing approval and queue hold.

4.4 Freight: 160,000 lbs.+/- FOB, Montgomery, PA;

Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 10 of 14

5.0 Factory drawings to be issued after receipt of order:

- 5.1 Equipment elevations for incinerator system.
- 5.2 Equipment plan for incinerator system.
- 5.3 Foundation elevation, equipment foot print and foundation loads.
- 5.4 Piping and Instrumentation.
- 5.5 System schematic.
- 5.6 Control panel switch and lamp arrangement.

Prices:

- 6.0 Equipment related to thermal reduction unit x 2, oxidizer, stack, Stack cap, stack cooler, blowers, controls, complete base system, including laptop, software and cables..... **\$421,000.00**

- 6.1 OPTIONAL freight services, FOB Job site , delivered to Dock in Dillingham, Alaska, fully insured by truck/ barge (5) loads, **\$ 85,000.00**

- 6.2 Pennram, installation and onsite assistance, includes all travel expenses, labor, TRU package, based on 10 days on site, 3 travel days, for factory crew of two:
 - 6.2.1 Labor and hotel, per diems \$950 per manday x 26 **\$24,700.00**
 - 6.2.2 Airfare allowance to Dillingham, business seats x 2 **\$6,800.00**

- 6.3 Validity of quote: 90 days

Installation requires 2-3 days of crane service, 2-3 day of mechanical service, and connection of utilities: diesel, propane gas, and electric, to one point on the equipment.

7.0 Payment terms as follows:

- 7.1 According to specs.
- 7.2 Any deviation from agreed upon payment schedule will void warranty.

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 11 of 14

7.4 Cancellation Terms: In the event purchaser cancels contract with supplier, the supplier is entitled to recovery of direct labor and material costs incurred to date in execution of the contract. Cancellation charges shall not include parts and materials the factory determines might readily be used on another contract over period of time of one year or less. Cancellation charges shall be figured on actual direct cost according to Pennram job accounting file report plus 30% overhead plus 10% administrative expense plus 10% profit. Any and all work, materials, drawings, and parts, shall be come the property of the purchaser, EXW, upon payment of cancellation charges.

8.0 RECOMMENDED SPARE PARTS (and tools) for five years operation (per site)
1st year items in RED

QUANTITY	PART	unit price	extended price
1	non indicating control timer	76.00	76.00
1	Burner programmer modules	350.00	350.00
1	HMI Touch screen	2,250.00	2,250.00
1	PLC transistor out put module 32 point	464.00	464.00
1	PLC 24VDC input module 32 point	464.00	464.00
1	PLC 120VAC input module 8 point	146.00	146.00
1	PLC analog input module 4 point	388.00	388.00
1	PLC analog output module 4 point	388.00	388.00
1	PLC CPU	465.00	465.00
1	0-40" w.c. manometer tool to measure air pressure w/tubing	350.00	350.00
1	type K thermocoupler simulator tool	450.00	450.00
1	Honeywell burner management display tool	400.00	400.00
1	(1) each type SQR D motor starter & OLR	425.00	1275.00
10	thermocouple elements	25.00	250.00
10	mullite thermocouple protection tube.....	38.00	380.00
6	thermocouple complete with terminal block and head	135.00	810.00
1	SQR D limit switches with roller arm	141.00	141.00
2	BOX ROPE GASKET - 5 YR SUPPLY 90 ft	630.00	1260.00
2	Main fuel Valve (1 each primary & secondary)	\$185.00	370.00
1	ignition valve (pilot) 3/8 npt	72.00	72.00

Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 12 of 14

1	ignition transformer.....	86.00	86.00
1	modulating motor	496.00	496.00
2	ignition wire	18.00	36.00
2	ignition electrodes.....	18.00	36.00
2	UV scanner	116.00	232.00

Refractory:

10	55 lb box plastic refractory -"hammer in" repairs kit, no cast	33.00	330.00
20	55 lb bags Satanite - sacrificial refractory coating -maintenance	44.00	880.00
1	Mixing tool for satanite	55.00	55.00
10	Stff bristle Application brush for satanite	15.00	150.00

9.0 Generic Installation:

9.1 Pennram has included, with its quoted equipment price, as an option, two men on site for (X) days to assist with the erection and start up/training of the thermal reduction unit system. Our guys will direct the assembly and assist with mechanical work to the best of their ability given the tools they can carry in the air.

9.2 The thermal reduction unit and related devices will ship in large prefabricated modules that are reassembled by flange and bolt system. We supply all the bolts and seals. There is no (or minimal) welding required. The system will have been 100% factory tested and assembled prior to shipment. All piping assemblies and conduits are match marked. We will supply drawings and photos for easy and rapid reassembly installation in the field. Our men will reconnect the field wiring.

9.3 Diesel supply will be required to one point on the thermal reduction unit, connection will likely be a 2-1/2" npt pipe size.

9.6 Two-three days are required for major components reassembly using a crane and Forklifts or both capable of lifting (and reaching as required) 40 tons.

9.7 Figure on 2-3 mechanics using alignment pins and turning wrenches this time frame.

City of Dillingham

Proposal #214007-00

February 7, 2014

Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 13 of 14

9.8 A (2) 6,000 lb capacity telehandler forklift may be required to assemble the smaller components after crane departure.

9.9 Approximately 1-2 additional days will be required to remount the various platforms, blowers, burners (prepackaged) fuel trains, and for the field wiring and piping, etc.

You should have two pipe fitters, and two mechanics during this time. You will also need a small (2-3 ton) forklift during this time.

9.10 The thermal reduction unit installation manpower you or the local contractor are to provide is as follows:

Mechanic - 2 men -2-3 days

Pipe Fitter - 2 men - 1-2 days

Crane 1-2 days

Large Forklift - 1-2 day to to complete assembly

9.11 Operators should be there the entire installation and start up and be ready to be trained by the Pennram technicians for operation of the thermal reduction unit.

10.0 Basic operation:

- 1) The operators remove ashes from the gasifiers as required.
- 2) The operators load rubbish into the gasifiers as required up to 11 tons.
- 3) The operator sets the gasifier run time on the HMI by inputing the approximate weight of waste loaded into each gasifier.
- 4) The operator closes and clamps gasifier doors.
- 5) The operator turns start key. The following steps are automated.
- 6) The oxidizer and gasifiers purge with fresh air allowing 3 air changes within the system.
- 7) The oxidizer preheats to the user preset temperature - typically 1600-1800°F.
- 8) Gasifier number one begins operation (if waste is loaded), and runs the calculated process cycle, then locks out burners and sets combustion air to cooling input level.
- 9) Gasifier number two begins operation(if waste is loaded), and runs the calculated process cycle, then locks out burners and sets combustion air to cooling input level.
- 10) System goes into cooldown mode and shuts off after a user adjustable timed cooling & shutdown period.

15.0 Equipment Sub-Vendors:

Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

City of Dillingham

Proposal #214007-00

February 7, 2014

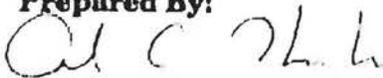
Re: RFP 14-01 Municipal Solid Waste Thermal Conversion System - 2014

Page 14 of 14

The following manufacturers are Pennram standard. In some cases we may be flexible in use of "other" brand names. However, note that as we, Pennram, are responsible for warranty and performance of the incinerator, we reserve the right to use vendors of proven reliability with long term Pennram experience.

15.1 Steel Supplier:	High Steel Service Center, Metals USA, Nivert Metals
15.2 Refractory Liner:	Harbison Walker Refractories
15.3 Burner Components:	North American / Fives
15.4 Fuel Valves (Gaseous):	Honeywell
15.5 Fuel Valves (liquid):	Asco
15.6 Pilot solenoid valves	Asco
15.7 Water solenoid valves	Asco
15.8 Air solenoid valves	Asco
15.9 Comb. Air Damper Motors	Honeywell
15.10 Temperature Controls	Honeywell
15.11 Programmable Logic Controller:	IDEC
15.12 Burner Supervision	Honeywell
15.13 Flame Monitor	Honeywell (UV scanner)
15.14 Control Panel Nema 4X:	Hoffmann Engineering
15.15 Power Dist/ Circuit Brkr:	Square D Company
15.16 Motor Starters:	Square D Company
15.17 Panel Switches & Lamps:	Allen Bradley
15.18 Proximity Sensors:	Reed Switch Developments Inc.
15.19 Limit Sensors:	Allen Bradley
15.20 Combustion Air Blower:	American Fan Corporation or Chicago Blower
15.21 Air Compressor:	Ingersol Rand
15.22 Waste Oil Pumps:	Albany gear pump
15.23 Electric Motors:	Baldor
15.24 Hydraulic Pump:	Bosch
15.25 Hydraulic Valves:	Vickers
15.26 Hydraulic Cylinders:	Sheffer Corporation
15.27 Gas Pressure Regulators:	Fisher Regulator Controls, North American

Prepared By:



Andrew C. Hooker
President & GM

Pennram Diversified Manufacturing Corporation



Manufacturers of: Incinerators...Hydraulic loaders...Tanks...Control panels...High temp. ducts and dampers...Process Equipment

**Eco Waste Solutions (EWS)
Equipment Quotation**

**Municipal Solid Waste
Thermal Conversion System (TCS)**

City of Dillingham, Alaska

**Submitted by:
Eco Waste Solutions (“EWS”)**

Quotation No: CHD-ECO 11T2PV

City of Dillingham, AK Request for Proposal (RFP) #14-01

Quotation Date: January 31, 2014

**Eco Burn Inc.
5195 Harvester Road, Unit 14
Burlington, ON, Canada L7L 6E9
Tel: 905-634-7022 Fax: 905-634-0831
Toll Free: 1-866-326-2876**

Ms. Tracey Goldberg
tgoldberg@ecosolutions.com

Ext.231



Eco Waste Solutions is a manufacturer of innovative point-of-need waste systems. Our mission is to provide robust, reliable, thoughtfully-designed equipment that is environmentally responsible. We foster a climate of energy and engagement within our team and with our clients; and we rely on procedures and practices that evolve with input from our clients and participation of employees in a continuous improvement effort.

Eco Waste Solutions' goal is to be a world leader in sustainable waste management solutions for our planet.

ECO WASTE OXIDIZER TECHNOLOGY & WASTE MANAGEMENT

Eco Waste Solutions (EWS) is a Canadian environmental technology company focused on point-of-need waste management solutions. **EWS Eco Waste Oxidizer** systems offer a sustainable waste management alternative for projects in remote locations and regions that are ecologically sensitive, where proponents want to avoid the environmental legacy of a landfill or other traditional disposal methods used in the past.

Why is the Eco Waste Oxidizer often the best solution for point-of-need waste management?

- Landfilling of waste, without prior treatment, is no longer an acceptable practice for domestic waste management. Many countries have banned the practice of landfilling without recovering to the maximum extent possible and treating the residual while recovering valuable energy.
- The construction of a landfill is the creation of a permanent feature that requires on-going monitoring and management.
- With land disposal there is always a risk of material and/or microbes migrating from the landfill via wind, animal or bird movement, or water run-off causing contamination far from the site of disposal.
- Shipping material to other communities or sites for disposal is now viewed as pushing the problem onto someone else to deal with.
- Transportation is also heavily dependent upon fossil fuels, impacts the air and contributes to greenhouse gases – shipping waste long distances has a high environmental cost.
- The potential for contamination and liability is greatly increased once waste leaves the generator's site. Shipping material away from the creation point can be risky, if the material is mishandled or there is an accident the waste can pose an uncontrolled threat to the population and/or the environment

How does the Eco Waste Oxidizer offer a better solution?

- Processing waste at the point-of-need reduces transportation impacts and lowers the risk of contamination to waterways and/or the land.
- The ash residual, even with the presence of metal and glass containers, will represent less than 10% of the original volume of waste. The process includes a long and thorough gasification phase of the material to an ash residual that has minimal unburned carbon, is non-leaching and essentially inert.
- Waste materials are exposed to the required temperatures for destruction of disease causing pathogens, an important consideration in communities because of the risk of home care medical waste which often ends up in the landfill. Pathogen destruction makes the *Eco Waste Oxidizer* a suitable means for disposing of dewatered sewage sludge.
- Modern gasification and thermal oxidation technology with good control and high temperatures like the *Eco Waste Oxidizer*, ensures that there will be no smoke and/or odour – a huge improvement over the uncontrolled burning that often occurs at landfills. Packages can be supplied with integrated air pollution control scrubbers guaranteed to meet the strictest standards in the world.
- The *Eco Waste Oxidizer* package is a fully commercialized and trusted method of waste disposal.

ECO WASTE OXIDIZER EQUIPMENT: RUGGED AND FIELD-PROVEN

A modern advanced technology gasification and oxidation system, like the **Eco Waste Oxidizer** system proposed in this document, can be the basis of a pollution prevention approach to waste management for a remote community.

Having an *Eco Waste Oxidizer* at the point-of-need allows for immediate and full control of the disposal of waste. This cost-effective waste management solution turns waste into non-toxic, non-leaching ash residual that will represent less than 10% of the original volume of waste prior to processing.

The **Eco Waste Solutions (EWS)** standard equipment packages are well known to be high quality and extremely robust. In 1995, **EWS** began supplying equipment to the Canadian Department of Defence (DND). The first contract with the DND was at Canada Forces Station Alert, the northern-most inhabited place in the world. The equipment deployed to Alert in 1995 is still serving this remote military post today.

The expectation of military ruggedness was influential in the early **EWS** equipment designs and remains the construction standard used by **EWS** today. **EWS** products are noticeably more robust than traditional equipment. Materials of construction most notably the steel shell, refractory lining, electrical and controls are more advanced and higher grade than is traditionally available. These factors are strongly correlated with equipment durability and lifespan; factors that have led to the strong following **EWS** has earned among its very demanding clients in the mining and military industries. Considerable R&D investment and continuous product improvement have led to a thoughtful design that is more practical and reliable in the field.

EWS also uses the latest in control technology including PLC (Programmable Logic Controller) computer-based system automation and the latest communication protocols.

Finally, one of **EWS'** most distinguishing features is the higher standard of environmental integrity inherent in its products. **EWS** has proven its environmental performance through more independent third-party testing and verification than any of its peers..

How is EWS' Eco Waste Oxidizer Technology different?

- Our industry-leading equipment with computerized automation and comprehensive monitoring has become the benchmark for many new regulatory requirements
- The automated operation of the system minimizes the need for a highly technical operator and constant operator input
- Customer feedback has been the basis for many of the advancements that our technology has over traditional equipment. The product has developed with a focus on ease of use, safety and reduced labor.
- **EWS** has a patented process with unique process control that minimizes harmful emissions particularly Dioxins and Furans

CITY OF DILLINGHAM - DESIGN SPECIFICATION CRITERIA

Reference

Eco Waste Solutions (EWS) technical and commercial proposal, presented in this document, is based on information provided by, and in response to, a Request for Proposal (RFP) #14-01, issued by **CH2M Hill**, dated January 23, 2014.

The Project

CH2M Hill has been contracted by the *City of Dillingham* in the State of Alaska to procure a **Municipal Solid Waste Thermal Conversion System (TCS)** for the city to process the waste material generated in this community.

Waste Description

As per the RFP, the MSW characterization has been defined below:

MSW CHARACTERIZATION

Table 1 below provides an analysis of the average MSW generated by the City, based on the Solid Waste Management Plan prepared for the City of Dillingham in 2006. Values for average MSW are shown for both winter and summer. The average density of the MSW is 15 lbs/ft³.

The MSW will be delivered to the TCS building by the City. The City's staff will remove large pieces of metal and concrete/brick that are visible to them when the MSW is dumped onto the TCS building tipping floor. In its Bid response, the TCS Supplier is required to confirm that its TCS can effectively process the City's MSW. Although the table shows that no household hazardous wastes are expected in the MSW stream, the TCS Supplier should include in its Bid response a list of common household hazardous wastes that can be processed in the TCS, while still meeting all performance and emission guarantees.

TABLE 1
Average MSW Characterization (2006 Solid Waste Management Plan – 2006 SWMP)

Waste Category	2006 SWMP Winter	2006 SWMP Summer
Corrugated paper	20.5%	35.7%
Newspaper and white paper	5.2%	1.5%
Other paper products	15.3%	4.0%
Wood	3.5%	7.9%
Aluminum cans	2.2%	2.5%
Glass	3.9%	3.1%
Plastic	3.5%	3.3%
Trash	21.4%	30.0%
Garbage	24.4%	12.5%
TOTAL	~100%	~100%

Notes:

Trash (or Non-Biodegradable items) – Any waste not in another component group and not biodegradable including: electronics, styrofoam, insulation, ceramics, small volume plastics, dirt, toys, tin cans, diapers, scrap metal, and candy or other plastic food wrappers.

Garbage (or Biodegradable items) – Any waste not in another component group and biodegradable including: food wastes, tissue paper, clothes, yard wastes, leather, and animal wastes.

CITY OF DILLINGHAM - DESIGN SPECIFICATION CRITERIA

EWS has further analyzed the data in Table 1 in order to make design assumptions about the waste. Please see *Appendix A: EWS Calculated Waste Characterization* in the Appendices section immediately following this EWS Quotation for our complete analysis of the waste.

EWS Waste Assumptions

Based on the waste description provided, EWS calculations in Appendix A and EWS past experience in remote locations, we have assumed the following waste characteristics during the *Peak Season* for the TCS design input:

Description	Total Moisture Content	Average Density	Range of Average Heat Value
<i>Community Waste</i>	21%	15lbs/ft ³	6500 BTU/lb

Waste Quantity

As per the RFP, the design criteria stipulates that the TCS be designed to process up to 11 short tons (22,000 lbs) of waste material per day. The waste material described will be delivered to the City to the new TCS building and onto to the tipping floor five (5) days per week. The TCS will be required to operate a minimum of five (5) days per week.

However, during the winter months, it is noted that the TCS will process only up to 2.5 short tons of waste material per day. Therefore, it is a requirement that the TCS be designed so that only one (1) of the thermal conversion units (or gasification units) be operated along with the single thermal oxidation/combustion unit, while still meeting all performance guarantees and emission limits, as described in the RFP and referenced in Appendix K: *EWS Performance Guarantee & EWS Performance Test Procedures*.

To accommodate this form of operation, EWS will provide a removable barrier to insert into the breach between the Gasification Unit and Thermal Oxidizer/Combustion Unit. This will prevent unnecessary heating of the Gasification Unit that is not in use during the winter months.

CITY OF DILLINGHAM - DESIGN SPECIFICATION CRITERIA

Also, **EWS** has made the following assumptions and clarifications:

- It is assumed that if there are any hydrocarbon spill absorbents/rags that they are in the form of oily rags, and are not to exceed 10% by volume of batch load.
- The solid waste will need to be co-mingled to ensure that any wet low heat value waste is mixed with the other drier higher value materials.
- Regardless of recycling programs that may or may not be available, it is assumed that the waste materials described is typical of domestic solid waste and will include some plastic packaging and containers.
- It is important to note that inappropriate materials including, but not limited to, reactive/explosive chemicals and items containing heavy metals will not be processed in the **TCS** proposed herein.

EWS PRODUCT SELECTION

Eco Waste Oxidizer – ECO Model Equipment

EWS offers a range of products to accommodate point-of-need waste disposal. These systems can be combined with other components such as air pollution control systems, liquid waste processing, heat recovery features, buildings, weigh scales, continuous emissions monitoring systems and other accessories, as required.

Based on the given waste description and waste quantity available for processing and **EWS** design waste assumptions; **EWS** proposes the **ECO Model Eco Waste Oxidizer** to process the waste generated in the City of Dillingham.

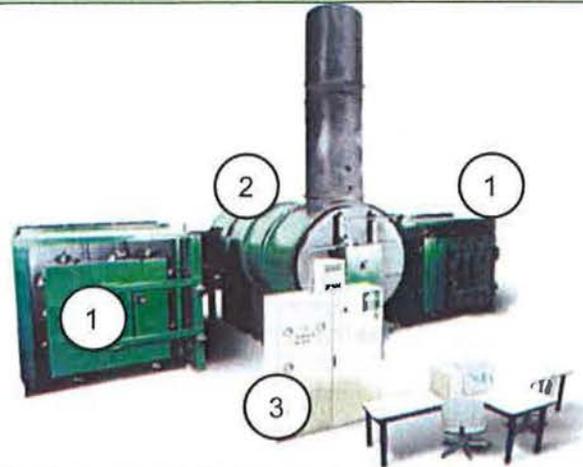
The ECO Model selected, specifically the **ECO 11T2PV Eco Waste Oxidizer package** is designed to process 22,000 lbs of municipal solid waste as described in the RFP.

This model will meet the waste management needs of the city and meet the technical specifications outlined in the RFP for a ***Municipal Solid Waste Thermal Conversion System (TCS)***.

ECO WASTE OXIDIZER PACKAGE

Main System Components

1. Gasification Unit (s)
2. Thermal Oxidizer/Combustion Unit
3. Main Control Panel



COMPONENT	FUNCTIONAL OVERVIEW
Gasification Unit X 2	<p>In the first stage, a diesel fired burner is used to elevate the temperature of the Gasification Unit(s). The burner will provide heat until, the process becomes self-fuelling and the burner will shut off. For normal waste material, this reaction will proceed without the need for additional fuel. To save fuel and control temperatures, only when the energy contained within the waste is depleted, will the burner periodically turn on. At these operating temperatures, solid waste is allowed to fully gasify and converted into syngas. The solid waste material is reduced in volume by over 90%. Independent tests have shown that the residual ash is non-hazardous, non-leaching and essentially inert. After enduring the gasification process, metals and glass remain intact. Preservation of metals and glass not only protects the refractory lining from damage caused by melted and fused metals and glass, but also allows for post-gasification/oxidation recycling where possible.</p>
Thermal Oxidizer/Combustion Unit	<p>As waste gasifies in the Gasification Units, the syngas produced in the first phase is drawn into the high temperature zone of the Thermal Oxidizer/Combustion Unit for cleansing. The Thermal Oxidizer/Combustion Unit is sized to retain the incoming gases for a minimum of 1 second at 850°C (1562°F). This stage utilizes a packaged, high output, fully modulating diesel burner to maintain the required temperature. This stage employs a large blower, tightly controlled by the control system using a variable frequency drive on the motor. The blower creates the turbulence required to mix the gases and oxygenate them. This fosters the high efficiency combustion required to break hydrocarbon chains into carbon dioxide and water vapour.</p>
Main Control Panel	<p>There is one Main Control Panel for the <i>Eco Waste Oxidizer</i> package proposed that controls all of the interconnecting modules. The Operator has one simple interface to start the equipment, view system status and change control settings if required. The system utilizes a PLC (programmable logic controller) to automate its functions. System critical process parameters such as temperature, combustion airflow, burner output are operated using EWS' patented system control program to maintain optimal combustion.</p>

ECO WASTE OXIDIZER OPERATING PHILOSOPHY

Although the RFP states that an unheated and un-insulated building enclosure will be provided (by others) to house the proposed system, EWS does recommend that the small control room in the building enclosure be heated for operator comfort.

Generally speaking there is no need for pre-sorting of the waste if source separation is practiced to keep inappropriate materials out of the waste feed. Please see *Appendix B: Acceptable Waste Streams* of waste types deemed acceptable for processing in the **Eco Waste Oxidizer**.

The **Eco Waste Oxidizer** operates in a batch style. As proposed, this system includes full size front doors for easy access to load the waste manually, if desired. However, this proposal also includes a **Top-Loading Package** for each of the **Gasification Units** for loading the waste overhead at the top of the **Gasification Units**, using a telehandler (provided by others).

Regardless of loading method utilized, it is expected that each day the **Gasification Units**, be loaded to design capacity. If waste quantities are not sufficient to operate the system daily, the units can be used to store the waste until requirement is met. Also, as requested, the **Eco Waste Oxidizer** proposed is designed so that only one of the **Gasification Units** is utilized, during the winter months, when waste volumes are much lower. The other gasification unit, will be shut down during this time.

The "winter" design configuration of the **Eco Waste Oxidizer** will operate using one **Gasification Unit** and the **Thermal Oxidation/Combustion Unit**, however will most probably be operated every other day, not daily, to meet the expected waste volumes of 2.5 short tons per day, as per the RFP.

Once loading of waste materials is complete, the doors of the **Gasification Units** are sealed shut and the **Thermal Oxidizer/Combustion Unit** is fired. The system is interlocked so that **Gasification Units** will not operate until the **Thermal Oxidizer/Combustion Unit** is at operating temperature. Once this occurs, usually within the first 60-120 minutes of the entire cycle, the **Gasification Units** cycle is initiated. During this phase, the syngas produced in the **Gasification Units**, are drawn into the highly oxygenated, turbulent environment of the **Thermal Oxidizer/Combustion Unit** for a minimum of 2 seconds at a temperature of 1800°F to complete the combustion reaction.

Typically, the Operator only remains present to load waste and supervise the beginning of the process, generally the first hour of the gasification process, and then is no longer required to be at the **TCS** system. The system will complete the gasification/oxidation cycle and the cool-down phase, automatically. Based on the waste quantity and description, the gasification/oxidation cycle is expected to occur over 10-12 hours, but could be longer depending on waste characteristics, to allow for thorough waste destruction. The cool-down phase that automatically follows is generally 12 hours.

It is clearly understood that the process is required to happen within a 24 hour period, however the starved air/pyrolytic type of process is different from forced air incineration. Waste is thermally decomposed at a slower rate than in forced combustion. Therefore, if waste is particularly wet on any given day, the drying phase will take longer.

At completion, the operator will then be able to open the front doors of the **Gasification Units** to clean out the remaining ash. This is generally performed the next day prior to loading the **Gasification Units** with another day's waste.

The entire process will be controlled by the PLC in the **Main Control Panel**. All key operating parameters will be controlled to factory pre-set settings using the integrated PLC. For simplicity of operation, the **Main Control Panel** comes with a full colour touch-screen user interface. The Operator can see the status of all of critical components and visual alarms for any malfunctions. The software also allows for logging and recording of system data, including historical trends.

ECO WASTE OXIDIZER TECHNICAL SPECIFICATIONS

TCS COMPONENT	DETAILS
General Overview	<ul style="list-style-type: none"> • ECO Model: ECO 11T2PV • Custom sized, two-stage, controlled air, batch style gasification/oxidation package • Shop assembled as packaged unit and tested before shipment and knocked down for transport purposes • Designed with lifting lugs for installation and maintenance purposes
Gasification Unit	<ul style="list-style-type: none"> • Two (2) gasification units to hold entire waste load requirement • Capacity of each gasification unit: up to 5.5 short tons • Batch cycle time: 10-12 hours (gasification/oxidation cycle) and 12 hours (cool-down) • Operating temperature of 500 – 1400°F • Includes: <ul style="list-style-type: none"> • Manifold with air inlets (ports) for process air and blower for cooling • Viewing ports to permit safe observation of the process during the processing cycle • Large front loading door for convenient manual loading of waste (if desired) and for manual ash removal
Top Loading Package	<p>To allow for easier loading of waste materials using equipment such as a telehandler or skidsteer loader. Top-loading is also conducive to emptying self-loading and dumping waste bins directly into the Gasification Units.</p> <ul style="list-style-type: none"> • Gasification Unit roof lifts vertically to allow full access to top of chamber • Hydraulically operated roof lifting device, fully integrated with control system including safety interlocks
Thermal Oxidizer/ Combustion Unit	<ul style="list-style-type: none"> • Completely separate vessel from the Gasification Unit to expose syngas to high temperature to complete combustion process • Operates at 1562°F with a retention time of 1 second • Includes: <ul style="list-style-type: none"> • Manifold air inlet (ports) for combustion and cooling air with excess air blower • Viewing ports to permit safe observation of the process • Access door for maintenance purposes

TCS COMPONENT	DETAILS
Outer Shell/Casing	<ul style="list-style-type: none"> • 6 mm (1/4" steel) thick carbon steel refractory lined, sand blasted, primed, painted with inhibiting and heat resistant paint • The casing plate temperature will not exceed 200°F during operation
Refractory Lining	<ul style="list-style-type: none"> • Combination of durable, resilient refractories • <u>Walls</u> (6" thick ceramic fiber blocks), this refractory is held in place with a minimum Type 310SS (stainless steel) anchors • <u>Floors</u> (6" thick reinforced castable refractory)
Exhaust Stack	<ul style="list-style-type: none"> • Mild steel 1/4" welded steel refractory lined stack in flanged sections for ease of on-site erection • Self-supporting and designed for local climatic conditions (to be supplied by client)
Diesel Burner Package	<ul style="list-style-type: none"> • UL/CSA approved • Two (2) Packages per Gasification Unit, two (2) packages in Thermal Oxidizer/Combustion Unit • <u>General</u>: Forced draft, pressure-mechanical atomizing, with built-in blower, complete with silencer and damper, oil pump driven by blower motor, complete with integral relief valve and filter, pressure gauge, high voltage ignition transformer. • <u>Control</u>: electronic combustion control relay with scanner to control combustion and to supervise flame. Control to shut off fuel within 5 seconds upon flame failure or upon signal of a safety interlock and to ensure, when restarted, in sequence, ignition and supervision of burner operation.
Diesel Day Tank and Piping Package	<ul style="list-style-type: none"> • Tank is of double-walled construction with a capacity (500 gallons) to be installed by others in accordance with applicable codes and standards • Storage tank allows for interstitial monitoring and includes a spill contaminant box for filling • Integrated low-level switch shuts burner off, when tank level reaches minimum • The packaged burner has an integrated fuel pump to suction fuel from the supplied tank, no additional pump is required, if located within 15' • Customer to use own transfer pump to fill tank (a transfer pump can be included at additional cost if requested) • Tank location is to be determined. Burner fuel lines will be heat-traced (by-others.)

TCS COMPONENT	DETAILS
Blowers	<ul style="list-style-type: none"> • One (1) each in Gasification Unit • One (1) in the Thermal Oxidizer/Combustion Unit for Oxidation, VFD controlled
Main Control Panel	<p>Main Control Panel with motor starters, overloads and breakers for all components is housed in a NEMA 12 enclosure: Features include:</p> <ul style="list-style-type: none"> • Variable Frequency Drive (VFD) controls the Secondary Combustion Fan • Single point electrical connection • Emergency stop button <p>Integrated Allen Bradley Programmable Logic Controller (PLC) automatically monitors the process, and controls the following functions:</p> <ul style="list-style-type: none"> • Temperature control, air/fuel modulation, system interlocks • Monitoring and data acquisition system • Equipment includes temperature sensors (primary, secondary and stack), differential pressure sensors with transmitter, monitoring of burner functions, auxiliary burner operation, door position interlock monitoring, high temperature limit and interlock, low fuel level limit and interlock, air proving switch interlocks, and integrated scale (if purchased)
4G Control System	<p>Touch-Screen Operator Control Panel Display makes system start up and operation visual and intuitive. The display also allows the Operator to view operating parameters (settings and signal outputs) during operation.</p> <ul style="list-style-type: none"> • Pre-installed with EWS' user friendly easy to understand graphics customized to reflect the package's unique configuration and components. • Screens include graphic representation of the equipment with status of all major components, display of alarms or system faults and data trending using historical charts • All system inputs above are recorded and logged for record-keeping purposes • Data acquisition system allows for historical trending of key operating conditions • The system automatically records operations and data port allows for data transfer of data for easy record-keeping <p>This feature is also useful in managing data for submission to regulatory bodies</p>
Export Packaging for international transport	<p>The <i>Eco Waste Oxidizer</i> will be prepped for shipment by EWS</p> <ul style="list-style-type: none"> • Large components (Gasification Units and Thermal

TCS COMPONENT	DETAILS
	Oxidizer/Combustion Unit) will be shipped bulk freight and tarped while on transport to site <ul style="list-style-type: none"> • Smaller accessories (stack sections, fuel tank, spare parts packages (if purchased), main control panel, etc.) will be containerized in two one-way (shipper owned) 40' ISO certified shipping containers to site • Containers will be outfitted with bracing for small crates and/or boxes
Eco Waste Oxidizer Clean Out Kit	Includes Ash Rake out tools to remove ash from Gasification Units

Please see the following section of Appendices immediately following this proposal for more detailed technical information:

Appendix C: EWS Recommended Spare Parts Packages

Appendix D: EWS General Arrangement Drawing

Appendix E: EWS Layout Drawing

Appendix H: EWS Technical Exceptions & Clarifications

Appendix J: EWS Motors List

Appendix K: EWS Performance Methodology & EWS Performance Guarantee

Appendix L: EWS Sub-Suppliers and Partners

Appendix M: EWS Statement of Water Quality Benefits

Appendix N: EWS Quality Plan

Appendix O: EWS Materials of Construction

Appendix P: EWS Sample Maintenance Schedule

Appendix Q: EWS Sample Operator Training Program Outline

Appendix R: EWS Ash Residual Information

Appendix S: EWS Air Emission Data

Appendix T: EWS Sample Process Control Function Description

PROPOSAL COMPARISONS

The following table compares the key design differences between the current EWS system that is being proposed, to the previous package from December 2013. It shows how these design changes will result in a significant reduction in diesel consumption allowing the system to meet the new 75 gallon per batch requirement.

	Original EWS Package (Dec-13)	Current / Proposed EWS Package (Feb-14)	Achieving the Dillingham Fuel Requirement
Waste Properties	Average heat value of waste: 5,000 btu/lb	Average heat value of waste: 6,500 btu/lb	Additional heat value in waste increases heat value of syngas for oxidation in SCC. This reduces the need for additional energy from diesel.
Primary Gasification Chamber (PGC)	Exclusively using diesel to maintain PGC temperature between 1,202 F (650 C) and 1,562 F (850 C)	Diesel for initial 15 minutes to achieve set-point temperature. Then, exclusively using air/oxygen to maintain PGC above 1,000 F (538 C) with no diesel.	Drastic reduction in diesel usage.
Secondary Combustion Chamber (SCC) Process Parameters	<p>a) operating temperature of 1,832 F (1,000 C)</p> <p>b) 2 seconds retention time of gases in SCC</p> <p>c) unrestricted supply of diesel to provide heat for combustion</p> <p>d) 45-60 minute pre-heating to 1,832 F (1,000 C)</p>	<p>a) operating temperature of 1,562 F (850 C)</p> <p>b) 1 second retention time of gases in SCC</p> <p>c) restriction of diesel supply and tighter control of excess air supply relying more on syngas</p> <p>d) 15 minute pre-heat stage to 1,562 F</p> <p>e) a combination of lower temperature and smaller retention time reduces the size/volume of the SCC</p>	<p>Significantly less diesel (from smaller burners) is needed to achieve and maintain smaller chamber at a lower temperature.</p> <p>Additional reduction of diesel will be achieved by increasing the oxidation efficiency of the PGC syngas in the SCC.</p>
PGC and SOC Materials of Construction	Mix of castable, ceramic fibre and firebrick refractory.	Minimizing castable and firebrick refractory. Increasing use of ceramic fibre modules.	Reducing "heat-sink" refractory materials will create an increase in heat conservation within the TCS. This, in turn, will reduce the need for external (diesel) fuel.

EWS DOCUMENTATION PACKAGE

The following list defines the EWS standard documentation package.

Additional documentation can be provided but must be agreed upon and defined in the contract. Additional documentation may result in increased costs.

DOCUMENT NAME	FORMAT	QUANTITY
Production Schedule	Electronic PDF file	1
ISO Quality Plan	Electronic PDF file	1
ISO Inspection & Test Plan	Electronic PDF file	1
Operation & Maintenance Manual	Hardcopy in 3-ring binder and files on a compact disc	2 binders, 2 CDs
Equipment Layout Drawings – General Arrangement with weights and dimensions	Electronic PDF file	1
Major component Assembly Drawings with Part Numbers	Electronic PDF file	1
Itemized Spare Parts Lists with Part Numbers	Electronic PDF file	
Piping & Instrument Diagram	Electronic PDF file	1
Electrical Schematics (including Control Panel layout drawing)	Electronic PDF file	1
System Control Philosophy	Electronic PDF file	1

ITEMIZED PRICING

Eco Waste Oxidizer Package

Item	Description	Unit Price \$US
Phase 1		
1	Technical Information	\$25,000

Phase 2		
2	Eco Waste Oxidizer Model: ECO 11T2PV	\$839,220
3	Spare Parts Package for commissioning and first year of operation ³	\$22,791
4	<p>Shipping² The <i>Eco Waste Oxidizer</i> will be shipped from EWS Facility in Burlington, Ontario, Canada to City of Dillingham, Alaska Dock, USA as requested in the RFP</p> <ul style="list-style-type: none"> • Includes loading of two (2) 40' containers of small <i>Eco Waste Oxidizer</i> components such as spare parts, main control panel, stack sections etc. • Includes loading of large components of <i>Eco Waste Oxidizer</i> such as Gasification Units and Thermal/Oxidation onto selected carrier trucks • Total number of flatbed trucks to transport Eco Waste Oxidizer package is estimated at five (5) <p>Please see <i>Appendix G: Estimated Shipping Dimensions and Weights</i> for more information.</p>	\$95,000

Phase 2		
5	Technical Services¹: Included: a) Installation and Assembly Supervision Service Package: <ul style="list-style-type: none"> • 1 EWS technician on-site for up to 5 days for installation and assembly supervision of local tradesmen (laborers) b) Start-up/Commissioning Package <ul style="list-style-type: none"> • 1 EWS technician on-site for up to 7 days for start-up and commissioning of system c) Operator Training <ul style="list-style-type: none"> • 1 EWS technician on-site for a minimum of one (1) week (40 hours) for operation and maintenance training for up to four (4) of the city's staff d) Emissions Source Testing Support <ul style="list-style-type: none"> • 1 EWS technician on-site for up to 5 days for supervision and support for source testing 	\$35,500
6	Emissions Source Testing	\$25,000
7	Supply Bond	\$28,050
Eco Waste Oxidizer Package		\$1,045,561
8	Post-Sales Technical Assistance (hourly rate)	See page 20
Alt 1	Bid Alternate-Extended Warranty (5 year)	\$204,500

Notes:

- 1) All Technical Service prices do not include travel to and from site nor travel expenses per visit. All travel-related expenses will be billed per Technical Assistance Rates table on Page 20 of this Quotation. Any additional items provided in technical services will be billed as per Technical Assistance Rates table on Page 20
- 2) Shipping costs to site, as per RFP, are estimated within this proposal. Due to severe fluctuations in transportation costs related to fuel, price etc., shipping costs are subject to change. Upon receipt of signed Purchase Order and after completion of in-house detailed, engineering, and at completion of Phase 1, where both parties will meet to agree upon date of delivery date, EWS will provide accurate shipping costs to City of Dillingham Dock.

EWS Recommended Items for Purchase

Item	Description	Unit Price \$US
1	Special Tools (see list in Appendix C)	\$6,150
2	Capital Spare Parts Package³ Major components for immediate replacement	\$17,948

Notes:

- 3) Spare Parts Packages and Special Tools are *estimated* within this proposal. Upon receipt of signed Purchase Order and after completion of in-house detailed engineering, EWS will provide itemized list with accurate pricing. See Appendix C: EWS Recommended Spare Parts Packages for detailed itemized list of spares.

TECHNICAL ASSISTANCES RATES

In-field Service & Training Rate	Price (\$US)	Description
Standard Rate	\$1,500.00	per day for standard ten (10) hour day (Monday to Friday) - \$150/hr
Overtime Rate	\$225.00	per hour for weekdays (Monday to Friday) in excess of ten (10) hour per day
Non Working Days	\$225.00	per hour for Saturday ten (10) hour day
	\$300.00	per hour for Sunday or Holidays ten (10) hour day
Non Working Days Overtime Rate	\$450.00	per hour for Saturday, Sunday or Holidays in excess of ten (10) hours per day
Travel Time	\$650.00	per day Monday through Sunday
Travel Costs	TBD	Travel expenses charged out at cost + 10%
Factory Training & Assistance Rate	Price (\$US)	Description
Standard Rate	\$900.00	per day for standard eight (8) hour day (Monday to Friday)
Overtime Rate	\$150.00	per hour for weekdays (Monday to Friday) in excess of eight (8) hour per day
Non Working Days	\$150.00	per hour for Saturday eight (8) hour day
	\$200.00	per hour for Sunday or Holidays eight (8) hour day
Non Working Days Overtime Rate	\$250.00	per hour for Saturday, Sunday or Holidays in excess of eight (8) hours per day

EWS MAINTENANCE PACKAGES

EWS is committed to working with our customers to ensure that they have reliable, well-maintained equipment.

Therefore, we offer Maintenance Packages to help manage the total cost of ownership. Planned and budgeted service and maintenance costs are considerably less expensive and less difficult to manage than emergency repairs or impromptu service calls. The cost of a Maintenance service contract is generally outweighed by the costs of any downtime with unplanned emergency service calls.

With the purchase of a Maintenance Package we can also offer discounted technical assistance rates and training rates. For more details please request a quotation for an EWS Maintenance Package

QUOTATION TERMS

1. Equipment quotation valid for 45 days (Shipping itemized pricing is subject to Note #2 on Page 18 of Quotation)
2. Subject to change in the event of errors and/or omissions

ITEMS BY OTHERS: (not included in equipment price)

1. Site preparation (including concrete pad or other suitable level surface)
2. Building enclosure for Eco Waste Oxidizer
3. Installation and assembly of Eco Waste Oxidizer
4. Final electrical terminations and power to main control panel and junction boxes
5. Applicable State or other taxes, as required
6. Environmental permits, bonding, local permits
7. Freight of equipment and materials to site from Dock of City of Dillingham, Alaska.
8. Equipment for off-loading such as crane and forklift
9. Mobilization to and from Jobsite by EWS technicians (air travel, taxi etc.) and Room and Board on-site. To be billed separately.
10. Time for site specific safety orientation or other safety requirements such as Medical Exam (if required)

PAYMENT TERMS

Eco Burn Inc. o/a Eco Waste Solutions manufactures equipment on a custom order basis. Therefore, the Schedule of Invoicing is as follows:

Phase 1:

- Milestone Payment #1 - \$25,000 at Contract Signing

Phase 2:

- Milestone Payment #2: Notice to Proceed for Phase 2 -10% of Contract Price
- Milestone Payment #3: Presentation of Major Un-Priced Work Orders - 30% of Contract Price
- Milestone Payment #4: Notification that Equipment is available to be shipped from EWS Factory – 30% of Contract Price
- Milestone Payment #5: Delivery of Equipment to Dillingham Dock or 60 days from Milestone Payment #4 – 10% of Contract Price
- Milestone Payment #6: Final Payment at Performance Test Certificate and Completion of Training – 20% of Contract Price

(All invoices are due upon receipt)

Please see *Appendix I: EWS Commercial Exceptions & Clarifications.*

DELIVERY

The ECO Model typically requires 20-24 weeks from receipt of Purchase Order (PO) and down payment.

Please see *Appendix F: EWS Production Schedule*

EQUIPMENT WARRANTY

Equipment Warranty

To the original Purchaser, EWS warrants that the products and parts manufactured by the Corporation and supplied hereunder shall be free from defective workmanship and material for a period of 18 months from notice of ready to ship or 12 months from start-up at Purchaser's site, whichever is less. EWS' warranty is limited to EWS supplying the Purchaser with parts F.O.B. Purchaser site, replacement of any product or parts which shall be proved to the Corporation to be defective, provided that the Purchaser gives notice in writing within three (3) days after defect discovery.

To provide all labour related to EWS manufactured / warranted parts for 18 months from notice of ready to ship or 12 months from start-up whichever is less. In the case where EWS has purchased components from other vendors or suppliers, warranty will be limited to providing, render reasonable assistance to Purchaser when requested, in order to enable Purchaser to enforce such warranties and guarantees by third party manufacturers suppliers.

Equipment Covered by Warranty

Equipment supplied under a purchase order to EWS including:

- Primary and Secondary Chamber
- Connecting ductwork between Primary and Secondary Chambers (Breach Sections) and the Stack Sections
- Controls – Manual, Electronic and Electric

Extent of Warranty Coverage

All costs related to the repair or replacement of system components where failure is due to defect in material, workmanship or design is covered by EWS for one year from the date of repair or replacement.

Replacement due to abuse, misuse, and/or lack of maintenance or carelessness is not covered. Wear from normal use, or alternative disposal costs are not covered.

There is no warranty on the following parts and/or any consumables:

- All burner flame-front parts
- Thermocouple elements + protection tubes
- Electrodes, photocells
- Gaskets, Seals and tubing
- Fuses, light bulbs and glass assemblies
- Nozzles, filters
- Refractory Surface Cracks*
- Tubing

*Note: Normal in high temperature applications

Warranty Provisions and Exceptions

EWS does not guarantee or warrant, either expressly or implied, the materials and workmanship of supplies, materials, equipment or machinery manufactured by third parties and furnished and installed by EWS (outside of the scope of this proposal) in the performance of the Work, to the extent such supplies, materials, and equipment or machinery is itself an end product with its own customary warranty.

EWS shall endeavor to obtain from all such vendors and suppliers and assign to Purchaser the customary warranties and guarantees of such vendors and suppliers with respect thereto. EWS shall, at the sole expense to Purchaser, render reasonable assistance to Purchaser when requested in order to enable Purchaser to enforce such warranties and guarantees by third party manufacturer's suppliers.

EWS will not be liable for any consequential damages, loss or expense arising from any change in or alteration to equipment of its manufacturer such changes or alterations having been made by any persons other than personnel of EWS or its agents, in which event such agents must have written permission of EWS prior to making such changes or alterations.

EWS shall in no event, be liable for consequential damages as a result of any breach of this agreement by or for any other reason. This warranty shall not apply to products or parts not manufactured by EWS or to equipment parts which shall be subject negligence, accident or improper control, improper operation, maintenance, storage, or damage or circumstances beyond the control of EWS or to other than normal use or service. Regarding parts of the equipment purchased by EWS, no warranty is made other than that offered by the original equipment manufacturer.

THE ABOVE ARE EWS' SOLE WARRANTIES, AND THE REMEDIES SET FORTH ABOVE CONSTITUTE PURCHASER'S EXCLUSIVE REMEDIES IN THE EVENT SUCH WARRANTIES ARE BREACHED. WITH RESPECT TO THE CONSTRUCTION AND MECHANICAL FUNCTION OF THE PRODUCTS, EWS MAKES NO OTHER WARRANTIES OF ANY KIND WHATEVER, AND THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES OR GUARANTEES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

TOP LOAD WASTE INCINERATOR

MODEL I8-700

Quotation No. IG1042x

For the supply and manufacture, of two waste incinerators, as per the description as follows:

INCINERATOR DESCRIPTION

The Model I8-700 has up to 4000kgs capacity per batch load and will burn at around 1000kgs per hour. The unit is a top loading design and has a heavy duty refractory cement lining for maximum heat retention. This unit operates at over 1200°C in the primary chamber to ensure complete combustion. This model also benefits from a heavy duty secondary chamber and burner which ensures a complete re-burn of any smoke and emissions and has a 2 second gas retention time.

FLUE GAS TREATMENT

The Model A8000 is designed so that all exhaust gasses pass through the flame of the secondary burners for the complete re-burn of harmful gas components. The exhaust gasses are then retained for 2 seconds on high temperatures of (850 - 1200 C, depending on application). This enables the exhaust gases to exit the stack safely into the atmosphere in the form of vapour.

PRIMARY CHAMBER

Heavy-duty steel casing
High quality refractory lining and insulation
Large full size top load counterbalanced door
5 x oil/gas fired ignition burners operated on/off

SECONDARY CHAMBER

Heavy-duty steel casing
High quality refractory lining and insulation
2 second gas residence time
2 x oil/gas fired ignition burners operated on/off

CHIMNEY

Heavy-duty stainless steel casing 1.5m

CONTROL PANEL

Control of primary and secondary burners
Temperature Monitoring with 4 digit display
Thermostat control device for burner (fuel saver)
Timer control 0- 12 hours
Integral fan timer control

ANCILLARIES

Operating and maintenance manuals
Spares list



INCINER8

Unit 2, Canning Road Industrial Estate,
Canning Road, Southport, PR9 7SN, UK.
Tel: +44(0)1704 884 020 Fax: +44(0)1704 632 400
Email. info@inciner8.com www.incinerator.net

PRICING

2x 18-700 Diesel fired incinerator (with sample points for third party testing) - \$240,000.00
2x Emissions Monitoring Systems (O2, CO, TOC, NO, NO2) - \$80,000.00 (optional)
1x Engineer (installation/training/commissioning) - \$30,000.00
2x Spare Part Packages (to enable continuous maintainability for 1 year) - \$4,429.00
Delivery to Alaska - \$48,000.00
Total Price - \$322,429.00
Lead time for shipment - 8 weeks
Manufacturer Inciner8 Limited
1 year warranty



MODEL I8-700

Multipurpose Incinerator

The ever increasing costs faced by industries to dispose of waste is escalating. Incineration has proven to be the most effective way of eradicating this problem. Our range of units are fully CE certified, ensuring that we meet the highest standards in safety and construction.

Inciner8 pride ourselves on our high level of customer service and support. We have local dealerships in over 35 countries and also provide qualified telephone support when needed.



KEY FEATURES

- Low running and maintenance costs
- Automatic and simple to operate control panel
- Incineration temperatures in excess of 1300°C
- 5mm steel casing and fully insulated
- Dense refractory concrete lining rated to 1600°C
- Solid hearth to allow maximum burnout
- Large top opening lid for easy loading
- Wide door for ash removal
- Stainless steel flue as standard
- Afterburner fitted as standard
- 12 month or 400 / 1000 hours warranty.
- CE marking
- Easy on-site installation
- Optional heat recovery system
- Optional stainless steel casing
- Optional Gas Cleaning System



MODEL I8-700

The Model I8-700 is one of our largest incinerators and was designed for large scale and municipal waste destruction. The unit has a 6.75M³ combustion chamber, with a large top opening lid for easy loading.

They are unique in build quality, durability and ease of installation, operation and servicing.

The large secondary chamber provides a post combustion afterburner to provide a 2 second gas residence time at high temperatures to ensure that all gases are re-burnt in the chamber.

The whole unit is a 5mm anodised steel shell with a 10cm thick refractory lining which keeps the heat inside the chamber whilst allowing cool walls on the outside.

All of our range of units are ideal for export because of their simplicity of operation and durability. We only use CE certified (Low Nox) burners for all of our incinerator range.

The specially designed ash rack and ash removal door on the bottom of the incinerator enables easy removal of ash even during the incineration process. The high quality refractory lining and insulation is suitable for temperatures of up to 1600°C. The unit also benefits from a large full size top load door with smaller inner doors for manual loading during incineration. The 5 burners utilize modulating fuel and air to allow for complete combustion.



Heat Recovery Option

As part of Inciner8's commitment to environmental factors, we are delighted to offer a bolt on heat recovery system for hot water, the system will reduce your energy costs, and compliment your existing hot water storage facility. The heat recovery kit can be retro fitted or the unit can be ordered complete at the time of purchase.



MODEL 18-700

Technical Specifications	
Fuel	Oil or Gas
Capacity	4000kg (6.75 m ³)
Burn Rate	1000kg/h
Avg Ash Residue	3%
Avg Fuel Consumption p/hr	25ltr

External Dimensions	
Length (mm)	6200
Width (mm)	2200
Height Incl. Flue (mm)	4500
Shipping Weight	16000kg

Operation	
Min. Operating Temperature	950°C
Max. Operating Temperature	1500°C
Residency Time in Secondary Chamber	2 Seconds
Temperature Monitoring	YES



MODEL I8-700

Recommended 1 Year Spare Parts Package

Part Code	Description	Qty.	Price USD\$	Total Price USD\$
IN017-16	Fire Rope Per 1m	14	\$8.22	\$115.08
IN005	Refractory Cement (25kg) Kit	1	\$194.48	\$194.48
BMT001	High Temp Black Mastic 310ml	1	\$20.00	\$20.00
BR004	Max P25 Oil Fired Burner	1	\$1,692.94	\$1,692.94
S1	HD Thermocouple	1	\$192.00	\$192.00
TOTAL USD\$				\$2,214.50

Inciner8 Ltd - Waste Incinerators Resume

Our ranges of incinerators are unique in their concave primary chamber design resulting in a natural re-burning of smoke and emissions. The U.K. government department (DEFRA) has even accepted that our incinerators have a 'natural secondary burn' without the need for an extra burner.

The Incinerator range has been designed for international usage fulfilling all requirements and having the added benefit of being very easy to install and maintain.

Temperatures within the primary chamber will reach between 1000°C – 1350°C with outlet temperatures of between 600°C – 1000°C dependant on model and application.

Our whole ranges of incinerators are CE certified to BS E7N4 6-2:1997(industrial thermo processing equipment – part 2. Safety requirements for combustion and handling systems), Low Voltage Directive 73/23/EEC, EMC Compatibility Regulation 89/336/EEC and Machinery Directive 89/392/EEC (including amendment).

A summary of the most recent emission testing report is as follows: -

Sulphur Dioxide 20.7mg per Nm³
Carbon Monoxide 1.6 mg per Nm³
Carbon Dioxide 214.1 g per Nm³
Nitrogen Oxides 241.2mg per Nm³
Solid Substances 3.6 mg per Nm³
Dioxins 0.0 mg per Nm³ (for incinerators with 2 sec, gas retention)

All the above are well below the EC limit values.

In summary these units have been designed for quick and low cost disposal of waste material (including high risk) whilst producing minimal odour, smoke and emissions. We only utilise the very latest Low Nox burner technology in order to constantly fulfil our clean air objectives.

Our incinerators are approved for use and are currently operating in the U.K., U.S.A. Europe, Russia, Belarus, Jordan, Iran, Iraq, Malaysia, Singapore and Australia.





060



CERTIFICATE OF REGISTRATION

Certificate Number

6596

This Certificate has been awarded to:

Inciner8 International
Unit 2, Canning Road Industrial Estate
Canning Road
Southport
PR9 7SN

Date First Registered

29/11/2007

In Recognition of the Organisation's Management System which complies with:

ISO 9001:2008

Date Certificate Expires

28/11/2016

For the Scope of Activities described below:

Wholesale Distribution of Waste Incinerators & Heaters, UK & International.
Manufacture, Sales and Distribution of Waste, Animal and Medical Incinerators.
Heaters.

*World Certification Services Ltd.
Custom House, 52A Mersey View
Merseyside, L22 6QB
United Kingdom*

This Certificate has been awarded by

WORLD CERTIFICATION SERVICES LTD.

Issued By:

*Issue Date:
Revision 0*

20/11/2013



The use of the accreditation mark indicates accreditation in respect of those activities covered by accreditation certificate number 60



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Fish and Game

BOARDS SUPPORT SECTION
Headquarters Office

1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Main: 907.465.4110
Fax: 907.465.6094

February 21, 2014

Honorable Alice Ruby, Mayor
City of Dillingham
PO Box 121
Dillingham, Alaska 99576

Subject: Board of Fisheries 2015/2016 Meeting Schedule

Dear Mayor ^{Alice}Ruby:

The Board of Fisheries set its schedule for 2015/2016 meeting cycle at its October 2013 work session. The Board takes into account several factors when it sets meeting schedules including other fisheries organization's meeting times, capacity of locations to hold a meeting, locations based on users, and other considerations. The board weighed these factors in establishing its meeting schedule which is now posted online with plans underway for the meetings.

At the October work session the Board set the Bristol Bay finfish meeting for December 8-15, 2015, in Anchorage.

The next Bristol Bay Finfish meeting is scheduled for the 2018/2019 meeting cycle which will be set at the Board's work session in October 2016. There is a public comment period prior to the work session and it would help to receive this request then as well.

Please let me know if you have any questions. I'm available at 465-6095, or glenn.haight@alaska.gov.

Sincerely,


Glenn Haight
Executive Director

cc: Karl Johnstone, Chair/Board of Fisheries
Board of Fisheries Members



February 5, 2014

Mr. Karl Johnstone, Chairman
Alaska Board of Fisheries
Alaska Department of Fish and Game
P.O. Box 115526
Juneau, Alaska 99811-5526

Dear Mr. Johnstone and Board Members:

The City and community of Dillingham strongly urge you to reconsider your decision on the location for the next Bristol Bay Board of Fisheries meeting. We urge that you hold the meeting within the Bristol Bay region and, more specifically, we invite you to consider Dillingham.

The community of Dillingham has been very happy to host the meeting several times in the past and we're confident that we can provide the facilities and services needed for the meeting. To assist with your consideration, we would provide the following information. We have daily airline schedules from Anchorage, daily airline service within the region, multiple hotels and B&B's and multiple restaurants and catering services. Local organizations have arranged services of all types to support the meetings. Our school facility has been the location of the Board meetings in the past. They have extended equipment, staff and extra space to make sure that the attendees are comfortable and that board and staff are accommodated.

Probably most important is the fact that our communities and residents are dependent upon the fishery and it is important that they have the opportunity to participate. Having the meeting in the region assures that residents from throughout the Bristol Bay region will have access to the Board of Fish meeting; the same will absolutely not be true if the meetings are held in Anchorage. The cost of travel and housing prevents most of our residents from participating in this most critical part of the management of the resource in our region.

In closing, our citizens are more than happy to assist with the preparations. We urge you to reconsider your decision on the location and we look forward to welcoming you to Dillingham.

Sincerely,

A handwritten signature in black ink that reads "Alice A. Ruby". The signature is written in a cursive style.

Alice Ruby
Mayor

Cc: Glen Haight, ADFG Board Support
Norm Van Vactor, BBEDC
Jason Metrokin, BBNC
Robert Clark, BBAHC
Dave McClure, BBHA
Ralph Anderson, BBNA
Dan O'Hara, Bristol Bay Borough

Bristol Bay Economic Development Corporation

P.O. Box 1464 • Dillingham, Alaska 99576 • (907) 842-4370 • Fax (907) 842-4336 • 1-800-478-4370



2/5/2014

Karl Johnstone, Chairman
Alaska Board of Fish
PO Box 115526
Juneau, AK 99811

Dear Chairman Johnstone and Board Members:

The Bristol Bay Economic Development Corporation on behalf of the coastal communities that we represent, sincerely requests your reconsideration of the meeting location for the next Bristol Bay board meeting. We understand that the Board recently chose the site location for this meeting to now be held in Anchorage.

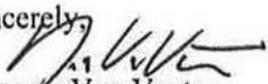
This certainly isn't the first time that we have expressed our concern about holding these meetings outside of the affected region. Over 30% of our region's population directly participate and are impacted by the Bristol Bay commercial salmon fishery to say nothing of the subsistence and sport fishery. We have hosted these meetings in the past and would welcome the opportunity to do it again. We advocate for alternating between the East side and West side of the region and for that reason would advocate for having this meeting in Dillingham. That said we would support any location In-Region that the Board might opt for.

When you hold these meeting In-Region local residents can participate. Village residents can make day trips to the community of choice, speak to their subject of concern, and quite often return home the same day. When these meetings are held out of the region and in Anchorage the cost of travel and housing completely precludes the vast majority of folks from participation. We recently were informed that the Department has chosen to relocate the full time assignment of the Senior Naknek/Kvichak from being based in King Salmon to Anchorage as well. Our communities ability to communicate and interact with the Department and you the Board is being significantly and negatively impacted. Distance and cost is truly a barrier to effective interaction and one that we hope you will do your part to correct.

We cannot stress enough how important these meetings are to the region and our residents. We would like to offer up a community effort on the part of our entire region to host the next Bristol Bay board meeting, a meeting that will make our region proud, and for you the Board Members a success.

Please don't hesitate to call if we can support this in any way.

Sincerely,


Norman Van Vactor
CEO/President

Cc: Glenn Haight



February 11, 2014

The Honorable Sean Parnell
Governor
State of Alaska
P.O. Box 1101
Juneau, Alaska 99811-0001

Dear Governor Parnell:

The City of Dillingham supports the appointment of Ms. Anne Vanderhoeven to the North Pacific Fishery Management Council (NPFMC). Ms. Vanderhoeven's formal education and past experience provide a great combination. She is not only experienced in the importance of applying sound science but also the importance of community and public involvement in the decisions that are a critical responsibility of the NPFMC.

Ms. Vanderhoeven will bring her broad Alaska and fisheries experience. She has been involved in fisheries programs and is knowledgeable about issues in the Bering Sea, the Gulf and elsewhere. Ms. Vanderhoeven is committed to and invests herself fully in understanding issues and seeking the best decisions possible. She has strong communication skills and has been very active in fostering transparent decision-making at the NPFMC level.

Ms. Vanderhoeven has been a member of the NPFMC Advisory Panel since 2010. She has been an active participant and is fully aware of all of the issues now before the Council and many of those that will likely be before the Council in the future.

We strongly urge you to designate Ms. Vanderhoeven as your preferred choice for appointment to the North Pacific Fishery Management Council.

Sincerely,

A handwritten signature in black ink that reads "Alice A. Ruby". The signature is written in a cursive style.

Mayor Alice Ruby