

**Agency: Commerce, Community and Economic Development****Grants to Municipalities (AS 37.05.315)****Grant Recipient: Napakiak****Federal Tax ID: 92-0048406****Project Title:****Project Type: Equipment and Materials**

# Napakiak - Municipal Landfill Burn Box and Equipment Acquisition

**State Funding Requested: \$240,000****House District: 36 / R**

One-Time Need

**Brief Project Description:**

Project funds critical equipment needed for the City of Napakiak's municipal landfill, including a D4-sized dozer such as a Case 850L wide-track dozer or equivalent, a Summit Burn box or equivalent, and a mini-excavator. Recent ADEC inspection identified serious deficiencies requiring prompt attention.

**Funding Plan:**

Total Project Cost:	\$240,000
Funding Already Secured:	(\$0)
FY2015 State Funding Request:	<u>(\$240,000)</u>
Project Deficit:	\$0

*Funding Details:*

*No other funding has been identified. The community is attempting to locate some local match.*

**Detailed Project Description and Justification:**

On June 21, 2013, officials with Alaska Department of Environmental Conservation (ADEC) performed a Class III landfill inspection in the City of Napakiak. The landfill received a score of 106 out of a possible 165 points, or a score of 64% on the inspection.

The Napakiak landfill is approximately two years old and was engineered as an above grade fill landfill. The landfill is roughly 4 acres in size and approximately 1800 feet from the village. A waste collection program is available for residents; however, self-hauling waste to the site is also allowed. A part-time landfill operator is employed for day to day landfill operations. Open burning of waste monitored by the landfill operator is the primary method of volume reduction of waste at the landfill. Cooled ash is pushed from the small working face and placed along the back corner of the landfill. Waste in the inactive area of the landfill is consolidated into several large piles, but is not compacted or covered with local material. A wheeled loader borrowed from the city is used at least once a week for landfill operations. A grader, also borrowed from the city, is used to keep the road to the landfill clear. Operations of the site could be improved with better consolidation of waste and regular application of landfill cover. The Napakiak landfill has a current ADEC Solid Waste Class III landfill permit that expires in 2016.

ADEC found that overall the landfill is operated well, especially considering the challenging environmental conditions and the financial hurdles the site faces. As a result of the June inspection, ADEC identified several areas where improvements

to the landfill can be made. The most serious of these issues include: waste spread out at the site, ash from burn unit not covered, metals area unorganized and white goods need CFC removal. The management issues and the operational deficiencies should be addressed as soon as possible and funding opportunities should be researched to purchase equipment or other capital items needed to improve the Napakiak landfill.

As a result of these recommendations (a copy of which is attached), the City of Napakiak needs to acquire the following three pieces of equipment. Where possible, the city intends to purchase used equipment in good shape. Prices include freight to Napakiak. These items are presented in priority order.

1. A D-4 sized dozer such as a Case 850L wide-track dozer or equivalent - estimated to cost \$125,000;
2. A Summit Burn Unit or equivalent - estimated to cost \$85,000
3. A mini-excavator - estimated to cost \$30,000.

The total cost for all three pieces of equipment is estimated at \$240,000. Attached is the ADEC inspection letter and several pages of research and quotes relating to the three pieces of equipment.

### Project Timeline:

The City has researched purchasing options for each component and can proceed with a procurement process as soon as the funding becomes available this year. The city estimates it can complete this process and have the equipment in place by fall of 2014.

### Entity Responsible for the Ongoing Operation and Maintenance of this Project:

City of Napakiak

### Grant Recipient Contact Information:

Name: Walter Nelson  
 Title: City Administrator  
 Address: PO Box 34009  
 Napakiak, Alaska 99634  
 Phone Number: (907)589-2300  
 Email: cityofnapakiak@hotmail.com

Has this project been through a public review process at the local level and is it a community priority?  Yes  No



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

Department of Environmental  
Conservation

DIVISION OF ENVIRONMENTAL HEALTH  
Solid Waste Program

555 Cordova Street  
Anchorage, Alaska 99501  
Main: 907.269.7642  
Fax: 907.269.7600

**Certified Mail #7012 1010 0003 0389 6582**  
**Return Receipt Requested**

December 10, 2013

City of Napakiak  
Alexie Temple, Mayor  
P.O. Box 34009  
Napakiak, AK 99634

Subject: Napakiak Landfill Inspection

Dear Mr. Temple:

On June 21, 2013, Doug Huntman, Trish Bower and Jacob Timmons with the Alaska Department of Environmental Conservation (ADEC) Solid Waste Program met with Harold Ilmar, Landfill Operator, City of Napakiak for a Class III landfill inspection. Napakiak's landfill received a score of 106 out of a possible 165 points or 64% on the inspection. The Inspection results are recorded on the attached Waste Index Matrix and summarized in this report.

Summary

The Napakiak landfill is approximately two years old and was engineered as an above grade fill landfill. The landfill is roughly 4 acres in size and approximately 1800 feet from the village. A waste collection program is available for residents; however self-hauling waste to the site is also allowed. A part-time landfill operator is employed for day to day landfill operations. Open burning of waste monitored by the landfill operator is the primary method of volume reduction of waste at the landfill. Cooled ash is pushed from the small working face and placed along the back corner of the landfill. Waste in the inactive area of the landfill is consolidated into several large piles, but is not compacted or covered with local material. A wheeled loader borrowed from the city is used at least once a week for landfill operations. A grader, also borrowed from the city, is used to keep the road to the landfill clear. Operations of the site could be improved with better consolidation of waste and regular application of landfill cover. The Napakiak landfill has a current ADEC Solid Waste Class III landfill permit that expires in 2016 (SW3A031-16).

Overall the landfill is operated well especially considering the challenging environmental conditions and the financial hurdles the site faces. As a result of the June inspection, I have identified several areas where improvements to the landfill can be made. The most serious of these issues include: Waste spread out at the site, ash from burn unit not covered, metals area unorganized and white goods need CFC removal. The Waste Index included with this inspection letter provides a good start to plan what projects should be addressed first and where improvements can be made. The management issues and the operational deficiencies should be addressed as soon as possible and

funding opportunities should be researched to purchase equipment or other capital items needed to improve the Napakiak landfill.

The Waste Index provides direction on what projects should be addressed first and where progress can be made. Management and operational deficiencies should be addressed as soon as possible by following recommendations in the report. Funding to purchase equipment and/or other capital items should be researched and improvement projects planned.

### **Findings and Recommendations**

**Consolidate and Cover Waste** – Waste in the Napakiak landfill is disposed of in several locations throughout the landfill. Cover had not been applied to either the active or inactive areas of the landfill at the time of the inspection. No signs were posted to designate where to dump, the result was random piles of waste scattered around the site. All waste in the Napakiak landfill should be consolidated towards the back area of the landfill and covered at regular intervals. Large areas of waste left uncovered and exposed to the elements will absorb rain and snow run-off and has the potential to create leachate. Leachate, can negatively impact human health and the environment by contaminating surface water. A small working face should be established in the active area of the landfill. This will reduce the footprint of exposed waste and help prevent contact with water and reduce litter from blowing out of the site. Inactive areas of the landfill should be consolidated and compacted with equipment and covered with at least six inches of soil on a regular basis. A stockpile of soil, or cover material was observed in the landfill during the June inspection and should be used to regularly cover the waste. It will take planning and additional effort to consolidate and cover the ash/waste in the winter, but this will add years to the landfill and reduce the impact to the surrounding surface water.

**Better Burn Unit management** – The Napakiak landfill has two homemade burn units designed to minimize the volume of waste disposed of at the landfill. Both units were functioning and emptied of ash on a regular basis. It is reported that the landfill operator monitors the burn and takes into account weather and wind direction before starting the burn. Uncovered ash was observed mixed with regular waste in the active working cell of the landfill. Uncovered ash is exposed to the elements and susceptible to the effects of water and wind. Only dry and combustible waste should be burned in the burn unit. The community should be educated on procedures to separate out non-burnable from waste burnable waste to reduce black smoke and created a safer burn. The operator should always be responsible for lighting the burn unit and should be present at the landfill for the full duration of the burn. He/she should also be assigned to make certain that no hazardous/prohibited wastes are burned in the unit. A sign should be installed that notifies people using the site that there is no open burning at the landfill. Once the waste is burned, the ash should be allowed to cool, and then disposed in the landfill. Ash, like regular garbage, needs to be covered in the landfill to prevent contact with water.

**Better management of C&D area** – The metals area of the landfill could be improved and upgraded to reduce risks to human health and the environment. Large ponds with material in them were observed in this area of the landfill. This area of the landfill does not have a perimeter fence or signs indicating where to dump and what items are prohibited from the site. Without a fence, it is hard to restrict access, creating a potential hazard issues for people salvaging parts and/or kids accessing the

site. The metals/backhaul section of the landfill should be organized better, with material staged for eventual removal or burial in the landfill. Fluids and batteries should be removed from vehicles prior to disposal. Freezers and refrigerators in the metals area of the landfill should be regularly inventoried and CFC's removed by a trained operator.

**Screen for Prohibited/Hazardous Wastes Prior to Disposal** –I observed electronic equipment, un-labeled barrels, and other household hazardous wastes disposed of in the landfill during the June inspection. Disposal of prohibited and hazardous waste in remote unlined landfills, and the potential for contaminants to escape into the nearby surface water is a serious threat. Waste should be screened prior to disposal, and prohibited and hazardous waste removed from the regular garbage. A covered collection areas should be established in the landfill for prohibited items to be stored prior to shipment out of the village. The operator should inspect the active area of the landfill on a regular basis for prohibited items. These steps will minimize the impact the landfill has on the environment and improve human health for the community.

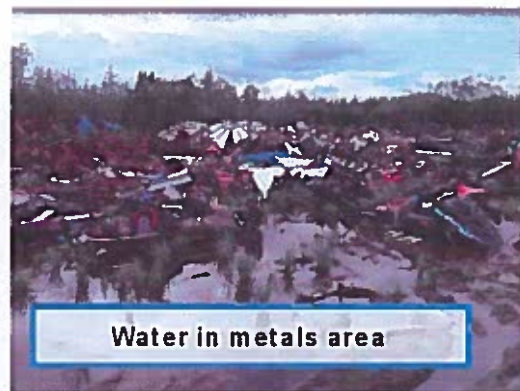
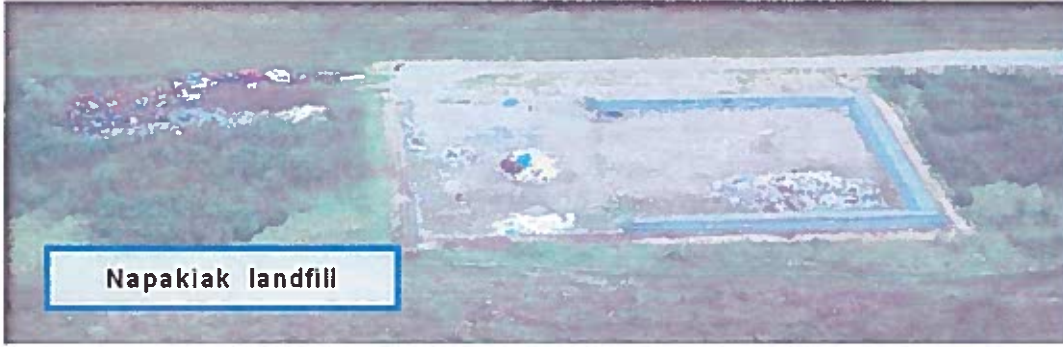
This report and Waste Index should be used as a resource to track and improve management of the Napakiak landfill. Some of the improvements require changes in operational procedures and community education. These often do not require a large capital investment but require creativity and follow thru to establish change in the community. Please contact me at (907) 269-7642 or by email at [doughuntman@alaska.gov](mailto:doughuntman@alaska.gov) if you have any questions, comments, or if I can be of any assistance.

Sincerely,



Doug Huntman  
Environmental Program Specialist







# YUKON EQUIPMENT, INC.

2020 E. 3rd Avenue, Anchorage, AK 99501-2994  
(907) 277-1541 • FAX (907) 276-6795  
www.yukoneq.com

**CASE**

January 31, 2014

City of Napakiak

200 mi Airport Rd

Napakiak, Ak 99634

Attn: Walter Nelson

We are pleased to quote a new Case 850M Wide Track Dozer with all the standard specs and the following options.

One each Case 850M Wide Track Dozer with Cab, Power Angle Tilt dozer blade, 120" dozer blade, 28" OC track pads, Brush screens, Center rock guards, Grid heater, Environmental easy drain on fluids, rear view mirror, Radio, Rear hyd function, Seat belt, Optional Cab lights and Rear wiper for cab.

Delivery is about 60 to 90 days after receipt of order and depending on barge schedules.

Price landed in Napakiak, Ak    \$141,800.00

Sincerely

Richard Kimball

Yukon Equipment

2020 E 3<sup>rd</sup> st

Anchorage, Ak 99501



# YUKON EQUIPMENT, INC.

2020 E. 3rd Avenue, Anchorage, AK 99501-2994  
(907) 277-1541 • FAX (907) 276-6795  
www.yukoneq.com



January 31st 2014

City of Napakiak  
200 mile Airport Rd  
Napakiak, Ak 99634

Attn: Walter Nelson

We are pleased to quote a used Yr 2013 Case 850L WT/ LGP Dozer with 800 hrs . This dozer has all the standard specs and the following options.

850L WT/ LGP Dozer with cab and heater and defroster. It will have 130" Dozer blade, 28" open center track pads, Radiator brush screens, Cab rear screen, Brush sweeps, Center rock guards, Grid heater with dual battery, 3-spool control valve, pump hyd equip w/pto, and optional cab lights.

Optional items added will be winter oils, block heater, heating pad on engine oil, winter front and antifreeze to -50 below. This is a used dozer in our store that is subject to availability and prior sales.

FOB Napakiak,Ak      \$121,945.00

Sincerely

Richard Kimball

Yukon Equipment





# YUKON EQUIPMENT, INC.

2020 E. 3rd Avenue, Anchorage, AK 99501-2994  
(907) 277-1541 • FAX (907) 276-6795  
www.yukoneq.com

**CASE**

January 31, 2014

City of Napakiak

200 mi Airport Rd

Napakiak, Ak 99634

Attn: Walter Nelson

We are pleased to quote a new Case CX17B Mini-Exv with all the standard specs and the following options. Weight is aprox 4,000 lbs

One each Case CX 17B Mini-Exv with ROPS, Rubber tracks, Two Speed travel, Dozer blade, Expandable width on tracks from 3 ft-3" to 4 ft-4", Additional counter weight, Long arm of 3 ft-11', and Travel alarm.

Delivery is about 60 to 90 days after receipt of order and barge schedule.

Price landed in Napakiak, Ak \$29,985.00

Sincerely

Richard Kimball

Yukon Equipment

2020 E 3<sup>rd</sup> st

Anchorage, Ak 99501

**Anchorage Office**  
4500 Business Park Blvd, Ste C-10  
Anchorage, AK 99503

**Tok Office**  
HC 72 Box 850  
Tok, AK 99780

**Fairbanks Office**  
2093 Van Horn Road Ste 1B  
Fairbanks, AK 99701

# SUMMIT

CONSULTING SERVICES, Inc.



ph: (907)563-5675  
fax: (907)563-5685  
summitanchorage@aol.com

ph: (907)291-2339  
fax: (907) 291-2333  
summitctok@aol.com

ph: (907) 458-7747  
fax: (907) 458-7748  
summitcfbks@aol.com

## Burn Box Proposal

January 30, 2014

City of Napakiak  
Attn: Walter Nelson  
PO Box 24009  
Anchorage , Alaska 99634  
Ph: 589-2611  
Fax: 589-2612

Ref: Fully Welded Burn Box

Summit Consulting Services is pleased to offer the following cost information. *Shop drawings will be provided upon receipt of order. Photos will be e-mailed upon request. Shipping costs will not exceed the estimate.*

Description	Weight	Units Price	Field Construction Costs Est.	Barge Transport	Extended Price
Model #414 FW 18' W X 10' T X 11' L	16000#	\$68,000.00	Included	\$14,500.00	\$82,500.00
Barge Transport not included on this proposal				TOTAL	\$82,500.00
*All pricing included for a #4 Burn Box fully factory welded					FOB Napakiak

Technical support will include consultations, on site training, operations and final inspection.

All products include a 6 month warranty on materials and workmanship.

Note interior width is 10'- 3" at the bottom

The purchaser will supply any available equipment for unloading, transport to/and landfill placement

The # 414 model includes a fire starter kit, reinforced ramps, ramp chain and a full skid with tow bar.

Allow at least 30 days for factory fabrication.

This quote is good for 120 days due to market conditions.

All logistic costs are included from the factory to the storage yard and on to the Napakiak barge landing.

Approval of a Sales Agreement is required.

Thank you for the opportunity to provide this information. Please call me at 563-5675 with any questions.

David Lancaster,  
Director of Rural Waste Management  
Summit Consulting Services, Inc.

**Anchorage Office**  
4500 Business Park Blvd, Ste C-10  
Anchorage, AK 99503

**Tok Office**  
HC 72 Box 850  
Tok, AK 99780

**Fairbanks Office**  
2093 Van Horn Road Ste 1B  
Fairbanks, AK 99701

# SUMMIT

CONSULTING SERVICES, Inc.



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ph: (907)291-2339  
fax: (907) 291-2333  
summitctok@aol.com

ph: (907) 458-7747  
fax: (907) 458-7748  
summitcfbks@aol.com

## Burn Box Proposal

February 7, 2014

City of Napakiak  
Attn: Walter Nelson  
PO Box 24009  
Anchorage, Alaska 99634  
Ph: 589-2611  
Fax: 589-2612

Ref: Fully Welded Burn Box

Summit Consulting Services is pleased to offer the following cost information. Shop drawings will be provided upon receipt of order. Photos will be e-mailed upon request. Shipping costs will not exceed the estimate.

Description	Weight	Units Price	Capacity	Barge Transport	Total Extended Price
Model #4-14 FW 18' W X 10' T X 11' L	16000#	\$68,000.00	20 cubic yds	\$14,500.00	\$82,500.00
Model #7-14 FW 18' W X 10' T X 11' L	21000#	\$80,000.00	30 cubic yds	\$19,000.00	\$99,000.00
Barge Transport included on this proposal					
*All pricing included for a #4 Burn Box fully factory welded					FOB Napakiak

Technical support will include consultations, on site training, operations and final inspection.

All products include a 6 month warranty on materials and workmanship.

Note interior width is 10'-3" at the bottom

The purchaser will supply any available equipment for unloading, transport to/and landfill placement

The # 414 or #714 model includes a fire starter kit, reinforced ramps, ramp chain and a full skid with tow bar.

Allow at least 60 days for factory fabrication.

This quote is good for 120 days due to market conditions.

All logistic costs are included from the factory to the storage yard and on to the Napakiak barge landing.

Approval of a Sales Agreement is required.

Thank you for the opportunity to provide this information. Please call me at 563-5675 with any questions.

David Lancaster,  
Director of Rural Waste Management  
Summit Consulting Services, Inc.

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January 28, 2014

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## Burn Box & Solid Waste Management

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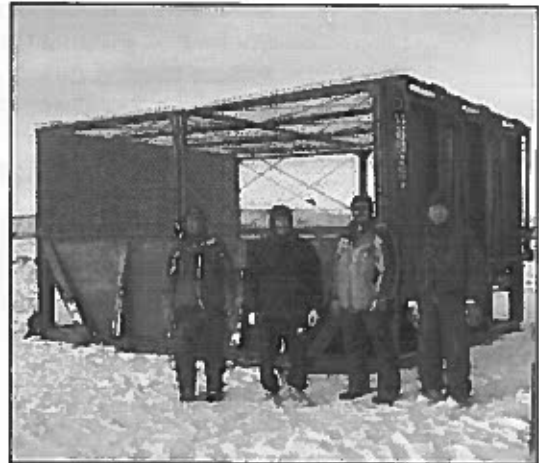
### Rural Waste Management Projects

#### Anvik Burn Box

Anvik received a #5 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

#### Buckland Burn Box

Buckland received a #7 knock-down Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.



#### Cold Bay Burn Box

Cold Bay received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

#### Dillingham Burn Box

Dillingham received a #10 knock-down Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.

#### Eek Burn Box

Eek received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

#### False Pass Burn Box



False Pass received a #4 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

**Galena Burn Box**

Galena received a #10 knock-down Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.

**Kiana Burn Box**

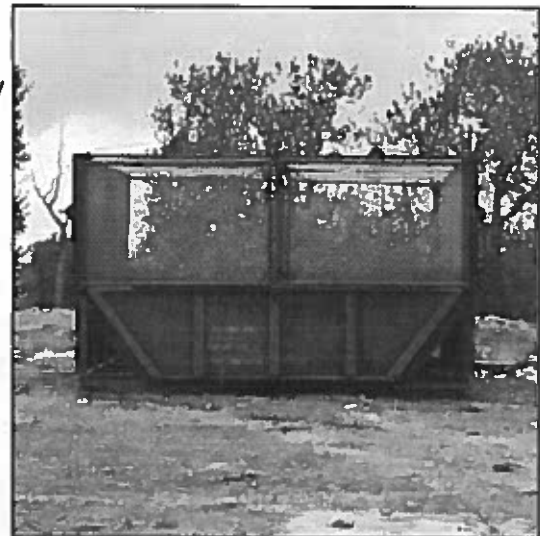
Kiana received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

**Kobuk Landfill Project**

Summit Consulting provided full construction management services to DOWL Engineers. Summit Consulting developed a material borrow source and site access road. A new landfill with security fence was constructed and the old dump site was capped and closed.

**Larsen Bay Burn Box**

Larsen Bay received a #10 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.



**Little Diomed Burn Box**

Little Diomed received a #4 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

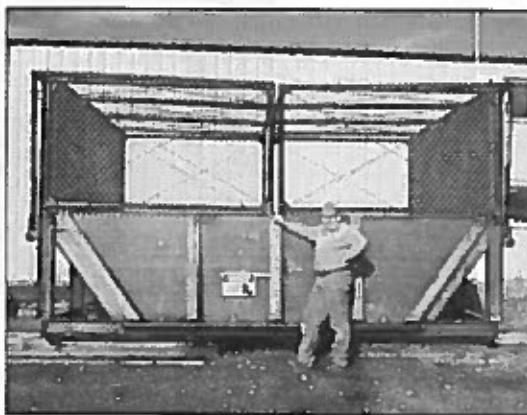
**Nanwalek Burn Box**

Nanwalek received a #7 fully-welded Summit Burn Box that was assembled and



barged from the factory in Anchorage.

#### **Newhalen Burn Box**



Newhalen received a #7 knock-down Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.

#### **Nondalton Burn Box**

Nondalton received a #10 knock-down Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.



#### **Nondalton Solid Waste Disposal Project**



As subconsultant to Bristol Environmental and Engineering Services Corporation, Summit Consulting Services, Inc. provided full construction management services for a new community landfill complete with chain link fence enclosure, a Summit Consulting Services, Inc. Burn Box for incineration of certain types of community waste, access road upgrades, and closure of the old landfill

site. The project was constrained by funding limitations and the original scope of work did not include closure of the existing dump. However, Summit and Bristol devised a cost effective solution to close the dump within the original budget. The plan was approved by the DEC and the dump was closed without adding additional cost to the project.

#### **Old Harbor Burn Box**

Old Harbor received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

#### **Pelican Burn Box**

Pelican received a #5 knock-down



Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.



**Port Lions Burn Box**

Port Lions received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

**Saint Marys / Pitkas Point Burn Box**

Saint Marys / Pitkas Point received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

**Sand Point Burn Box**

Sand Point received a #10 knock-down Summit Burn Box that was barged from the factory in Anchorage and completely site assembled.

**Seldovia Burn Box**

Seldovia received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.

**Tyonek Burn Box**

Tyonek received a #7 fully-welded Summit Burn Box that was assembled and barged from the factory in Anchorage.