

CITY OF DILLINGHAM, ALASKA

RESOLUTION NO. 2014-20

A RESOLUTION OF THE DILLINGHAM CITY COUNCIL APPROVING THE TRANSITION OF THE DILLINGHAM MUNICIPAL LANDFILL FROM OPEN BURNING MUNICIPAL WASTE TO COMPACTING AND INCINERATION

WHEREAS, the City of Dillingham is in the process of renewing their Solid Waste Landfill Permit with the Alaska Department of Environmental Conservation (AkDEC); and

WHEREAS, the City has been told by AkDEC that it will not be able to open burn the municipal waste with the new permit; and

WHEREAS, the City has been exploring the different options such as compacting, baling and incineration for disposal of municipal waste; and

WHEREAS, the current location of the Municipal Landfill will not be able to handle the waste stream for many more years, which at its peak is estimated at about 20 tons/day; and

WHEREAS, the City has chosen incineration for disposal of its municipal waste which will reduce the bulk by about 95%; and

WHEREAS, the Penram Diversified Manufacturing Corporation is recommending a customized model PHCA-1700 incinerator rated 1700 lbs/hour of municipal waste; and

WHEREAS, during the March 13, 2014 council meeting the Council approved Action Memorandum No. 2014-03 for a tentative contract with Penram for a system that would handle about 11 tons per day with a fuel consumption of 71 gals, for a cost of \$671,358; and

WHEREAS, the recommended model PHCA-1700 system which will handle 20 tons a day, with an estimated fuel consumption of 61 gals, will be about \$856,408; and

WHEREAS, the time frame to get the incinerator installed and running will be the early part of 2015; and

WHEREAS, in the interim the City will need to compact the municipal waste at the landfill which is going to take additional equipment and cell preparation; and

WHEREAS, it is estimated that the entire cost of getting the landfill transitioned from compacting to incineration will cost about \$2.1 million; and

WHEREAS, the City has a legislative appropriation with a balance of \$1.8 million to be used for the landfill compliance process; and

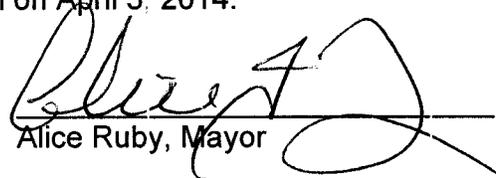
WHEREAS, the City may be required to contribute about \$300,000 to complete the process;

NOW, THEREFORE, BE IT RESOLVED that the Dillingham City Council approves the following purchases from the legislative appropriation grant for a total amount of \$1,026,408, with a breakdown as noted below:

1. Pennram Model PHCA-1700 incinerator to include equipment, spare parts, freight, performance bond, installation and training in the amount of \$856,408;
2. Purchase of a used compactor with clam bucket to be used to place and cover garbage at about \$120,000; and
3. Purchase of gravel to build up existing cell berm at about \$50,000.

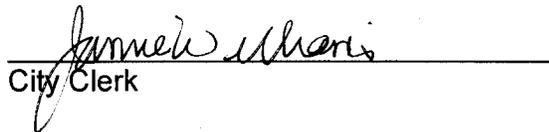
BE IT FURTHER RESOLVED that the Dillingham City Council understands that additional funds may be needed after the legislative appropriation is exhausted and staff will come forth with an additional resolution requesting the funds.

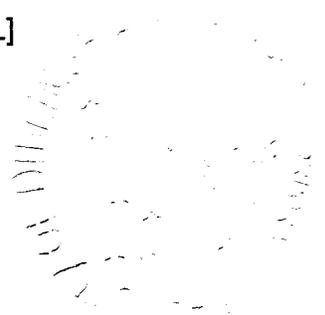
PASSED and ADOPTED by the Dillingham City Council on April 3, 2014.


Alice Ruby, Mayor

ATTEST:

[SEAL]


City Clerk



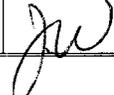
Subject: A resolution of the Dillingham City Council approving the transition of the Dillingham Municipal Landfill from open burning municipal waste to compacting and incineration

Agenda of: April 3, 2014

Council Action:

Manager: Recommend approval

City Manager: Rose Loera
Rose Loera

Route To:	Department / Individual	Initials	Remarks
X	Finance / Carol Shade		
X	City Clerk / Janice Williams		

Fiscal Note: Yes X No _____ Funds Available: Yes X No _____

Other Attachment(s):

- Spreadsheet Summarizing the Bid Process for Thermal Conversion System
- Landfill Estimated Budget

Summary Statement.

The purpose of this Information Memorandum is to authorize the Mayor or City Manager to proceed with the purchase of an incinerator from Penram – Model PHCA 1700 - \$856,408, the purchase of a compactor with clam bucket - \$120,000 and purchase of gravel to build up the existing cell at the landfill - \$50,000 to prepare for compacting starting June 1, 2014. The funds for these purchases would come from the \$1.8M legislative appropriation.

During the March 13, 2014 the council approved a tentative contract with Penram for a system that was thought to be adequate. After a visit to the factory, Penram recommended the Model PHCA 1700 incinerator that has a capacity of incinerating 1,700 lbs/hour at a higher cost than what was originally proposed.

The City of Dillingham has been exploring an incineration system for over a year that would incinerate the municipal waste by 95%. The incineration process will extend the life of the existing landfill for many years.

It was originally thought that the City would be able to start incinerating soon after the equipment landed in Dillingham as the plan was to build the building and lay the foundation before its arrival. After the visit to the Penram factory, it was realized that the equipment size and weight will require us to build the building around the system which may bring the City to February of 2015 for the actual start-up of the incinerator.

With this extended time of needing to compact the City needs to purchase a compactor that would be used exclusively for the landfill and we need to build up the existing cell to handle the waste we will be compacting.

The City owns an excavator that has an attachment that can compact but this piece of equipment is needed for the Snag Point erosion and scrap metal projects. Juggling the use of this equipment is not recommended because of the short construction season.

**City of Dillingham
Fiscal Note**

Agenda Date: April 3, 2014

Request: _____

ORIGINATOR: Carol Shade

FISCAL ACTION (TO BE COMPLETED BY FINANCE)		FISCAL IMPACT <input type="checkbox"/> YES <input type="checkbox"/> NO	
AMOUNT REQUESTED: <p align="right">\$ 1,026,408.00</p>		FUNDING SOURCE <p align="center">State of Alaska</p>	
FROM ACCOUNT 4470 8520 30 81 3811 0 <p align="right">\$ 1,026,408</p>		Project <p align="center">Landfill Oxidation Grant</p>	
TO ACCOUNT:	VERIFIED BY: Carol Shade	Date:	4/3/2014

EXPENDITURES

OPERATING	FY14	FY15	FY16	FY17
Personnel				
Fringe Benefits				
Contract				
Major Equipment				
Land/Buildings				
Miscellaneous				
TOTAL OPERATING	\$ -	\$ -	\$ -	\$ -

Capital	\$ 1,026,408.00			
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REVENUE				
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FUNDING

General Fund				
State/Federal Funds	1,026,408.00			
TOTAL FUNDING	\$ 1,026,408.00	\$ -	\$ -	\$ -

POSITIONS

Full-Time				
Part-Time				
Temporary				

ANALYSIS: (Attach a separate page if necessary)

See R 2014-20

PREPARED BY: Carol Shade

April 3, 2014

DEPARTMENT: Finance Department

April 3, 2014

Landfill Estimated Budget

Grant

2,000,000.00

Known Items

DEC permit expires 6/1/14, CH2 engineers are working on permit
After 6/1 no more open burn, except for paper and non treated wood
Current dump cell is full, berm needs to be made higher
Current dump cell about 10,000sft (200x100/2)
Metal salvage is scheduled for summer, equipment onsite
An area needs to be set aside for septage dumping
Cover soil or gravel is not available-needs to be mined or purchased
Items completed to date, Procure Engineer, RFP incinerator
City overhead cost

200,000.00

Remaining Budget

1,800,000.00

Estimated Event and Cost

Travel to visit plant 15,000.00
purchase incinerator, parts, setup, freight, testing 356,408.00
building site selection, test holes & soils report 15,000.00
sitework estimate for new building 100,000.00
bldg engineering Fire Marshall permit 50,000.00
utilities, water, power, telephone, drainage system 25,000.00
concrete (based on 60x90) 140,000.00
metal building, no insulation (winter construction) 400,000.00
payment & performance bonds 15,000.00
mobilize incinerator, crane, labor for setup, temporary heat 15,000.00
reach forklift to load incinerator 40,000.00
fence incinerator building w/ electric bear fence (spring 2015) 15,000.00

Balance remaining from Grant

113,592.00

Events That Need To Happen

build existing cell berm higher, using gravel 50,000.00
isolate area to dump burn ash (paper & wood ash) 1000-1500sft
?repair transfer trailers 10,000.00
mine cover material & stockpile 50,000.00
landfill loader work burn and stockpile cover for compactor
compactor w/ clam bucket to place and cover garbage 120,000.00
fence dump cell & provide electric fence for bears 25,000.00

Amount unfunded

141,408.00

Schedule of Events

Travel to visit Pennram	3/25-3/27
Purchase	4/4/2014
Delivery to SEA dock	9/2/2014
Arrive DLG	10/15/2014
RFP for building design and fire marshall permit	4/4/2014
30 days to advertise	4/7 to 5/5
Award design contract	5/11/2014
45 days to design	6/23/2014
Fire Marshall permit	7/10/2014
30 days to advertise for construction contractor	7/21 to 8/20
council approval and award contract	8/29/2014

It takes a minimum of two months to get a non standard metal building there is no way to make the last barge with the building based on above schedule. Two months might be tight fabrication time in mid summer; however, using two months results in a completed design and building purchase by the end of June. If that could happen, the building will be erected in late October and November. The subcontractors, mechanical, electrical, sprinkler will be in there till December. We will be installing the incinerator in late December to early January. This building is not insulated or heated.

We will need to compact garbage for seven months based on above schedule.

Estimating two transfer trailers and two refuge trucks dump a day at 40cyds each, results in 160cyds per day. A ten thousand square foot cell twelve foot high will hold about 4400cyds/160 is about 28 days of dumping. Divided by open days is 7 weeks in the current cell. Using 2500cyds/month and 7 month compacting duration, we need a cell that will hold around 20,000cyds. Based on the above estimated cubic yards, if we had a 30,000sft cell (150x200) the City will fill it about two foot a month.

The City needs to build another cell.

Cost estimate for cell	150,000.00
Final Budget Balance	291,408.00

**Dillingham TCS, RFP 14-01 Submittals
Supplier Cost Comparison**

Supplier	Year 1		Year 1-2		Year 1-3		Year 1-4		Year 1-5		Year 1-6		Year 1-7		Year 1-8		Year 1-9		Year 1-10		
	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	Capital	Diesel*	
Eco Waste Solutions																					
11 ton system w/1 burner	\$1,045,561	\$61,454	\$64,527	\$67,753	\$71,141	\$74,698	\$78,433	\$82,354	\$86,472	\$90,796	\$95,335	\$1,045,561	\$61,454	\$64,527	\$67,753	\$71,141	\$74,698	\$78,433	\$82,354	\$86,472	\$90,796
Total All @ 75 gal. diesel																					
	\$1,107,015	\$1,171,542	\$1,239,295	\$1,310,435	\$1,385,133	\$1,463,566	\$1,545,920	\$1,632,392	\$1,723,187	\$1,818,523											
Pennram 1st Bid																					
2 ea. 5.5 ton system w/ 1 burner telehandler (loading) addl. Tech support	\$610,061 \$175,000 \$5,720	\$90,132	\$94,639	\$99,371	\$104,339	\$109,556	\$115,034	\$120,786	\$126,825	\$133,166	\$139,824	\$1,045,561	\$61,454	\$64,527	\$67,753	\$71,141	\$74,698	\$78,433	\$82,354	\$86,472	\$90,796
Total All @ 110 gal. diesel																					
	\$880,913	\$975,552	\$1,074,922	\$1,179,261	\$1,288,817	\$1,403,851	\$1,524,637	\$1,651,461	\$1,784,637	\$1,924,452											
Pennram 2nd Bid																					
2 ea. 2.5 ton system w/1 burner telehandler (loading) addl. Tech support Fuel tank spare parts	\$551,461 \$48,000 \$5,720 \$8,000	\$58,177	\$61,086	\$64,140	\$67,347	\$70,715	\$74,250	\$77,963	\$81,861	\$85,954	\$90,252	\$1,045,561	\$61,454	\$64,527	\$67,753	\$71,141	\$74,698	\$78,433	\$82,354	\$86,472	\$90,796
Total All @ 71 gal. diesel																					
	\$671,358	\$735,197	\$799,337	\$866,684	\$937,399	\$1,011,649	\$1,089,612	\$1,171,473	\$1,257,426	\$1,347,678											
Pennram 3rd Bid																					
Model PHCA-1700 Incinerator includes freight, hand & install spare parts Fuel tank	\$778,281 \$20,144 \$8,000	\$49,983	\$52,482	\$55,106	\$57,862	\$60,755	\$63,792	\$66,982	\$70,331	\$73,848	\$77,540	\$1,045,561	\$61,454	\$64,527	\$67,753	\$71,141	\$74,698	\$78,433	\$82,354	\$86,472	\$90,796
Total All @ 61 gal. diesel																					
	\$856,408	\$908,890	\$963,956	\$1,021,858	\$1,082,613	\$1,146,405	\$1,213,387	\$1,283,718	\$1,357,566	\$1,435,106											
Inciner8																					
2 ea. 5.5 ton systems w/2 burners 2 ea. hydraulic rams (loading)	\$322,429 \$140,000	\$163,878	\$172,072	\$180,675	\$189,709	\$199,195	\$209,154	\$219,612	\$230,593	\$242,122	\$254,229	\$1,045,561	\$61,454	\$64,527	\$67,753	\$71,141	\$74,698	\$78,433	\$82,354	\$86,472	\$90,796
Total All @ 75 gal. diesel																					
	\$323,883	\$388,410	\$456,163	\$527,303	\$602,001	\$680,434	\$762,788	\$849,113	\$940,555	\$1,036,958	\$1,138,391	\$1,244,824	\$1,356,257	\$1,473,690	\$1,596,123	\$1,724,556	\$1,858,989	\$1,999,422	\$2,145,855	\$2,297,288	\$2,454,721
Total All @ 200 gal. diesel																					
	\$626,307	\$798,379	\$979,054	\$1,168,764	\$1,367,958	\$1,577,113	\$1,796,725	\$2,027,318	\$2,269,440	\$2,524,452											

*Diesel calculated @ \$4.29 gal with a 5% increase each year and based on 122 daily burns during the summer season, and 69 burns during the winter season (only 2X a week) = Total 191 burns/year
 - summer season is May 15-September 15, a total of 142 days or 14.2 burns
 - winter season is 243 days/7 days a week X 2 burns a week = 69 burns
 All meet DEC requirements