

SOLID WASTE POLICY ADVISORY COMMITTEE

SWPAC

March 17, 1986

Committee Members Present

Shirley Coffin, Dave Phillips, Ed Gronke, Teresa DeLorenzo, Michael J. Pronold, Carolyn Browne, Bob Harris Bruce Rawls, Craig Sherman, Gary Newbore, Kathy Cancilla, Richard Howard, Delyn Kies, Pete Viviano

Committee Member Absent

George Hubel, Mike Sandberg

Staff Present

Rich McConaghy, Wayne Rifer, Randi Wexler, Patrick Miner, Steve Rapp, Mary Jane Aman, Pat Vernon

Agenda Item:

Selection of Chairperson

The meeting was opened by Mary Jane Aman, Administrative Assistant for Metro Solid Waste Department. There were two committee members who expressed an interest in the Chair and Vice Chair positions, Teresa DeLorenzo and Kathleen Cancilla. There were no additional nominations from the floor, the nominees gave a personal profile of themselves and the election took place. Teresa DeLorenzo was elected Chairperson and Kathy Cancilla, Vice Chairperson.

Non-Agenda Items:

Teresa asked that members bring their own coffee mugs and linen napkins in keeping with the committees task of reducing solid waste.

To co-ordinate with the Resource Recovery Project schedule, it will be necessary for SWPAC to meet before April 21st - it was decided that April 14th would be the regular meeting date for April.

After a brief discussion it was agreed that, unless the need for a special meeting arises, the SWPAC meetings will continue to take place on the third Monday of each month at 12:00 noon.

Agenda Item:

Minutes of February 10th SWPAC meeting  
be accepted as written. Motion made by Dave Phillips, seconded by Shirley Coffin

Agenda Item:

Certification Program/Information Items

Wayne Rifer led the discussion of the Certification Program items

- By-Law changes to more specifically identify the functions and responsibilities of the SWPAC committee were passed out to be reviewed for recommended changes. These recommendations will be presented to the Council at a later date.

- Handed out Certification Program descriptive materials - in draft form - to peruse, deadline for comments April 14th.

•A draft of Metro's response to the Environmental Quality Commissions proposed modifications to Metro's Waste Reduction Plan distributed. Metro would like to have SWPAC's input on this as it relates to the certification program. In order to get the committees input back to Council before the ordinance is scheduled for its second reading on April 10th, a special SWPAC meeting was arranged for March 31, at Noon.

Agenda Item:

Certification Program/Action Items

•SWPAC Work Plan and Time Line for certification passed out to members.

Ed Gronke expressed concern about the way Metro is persuing this program and would like to see the local jurisdictions more deeply involved so that the committees efforts are not in vain.

Dave Phillips commented that it is difficult to get local public and local jurisdictions involved and that it must be remembered DEQ is also a critical player in this process.

•Wayne Rifer, Solid Waste Analyst then asked for comments regarding the Missions and Procedure Statement for the Local Government Certification Advisory Committee (LGCAC).

Ed Gronke said the committee should be allowed to select their own chair, who would in turn work very closely with SWPAC chair.

Teresa DeLorenzo suggested that perhaps the LGCAC should be more formal and operate with a quorum to avoid misrepresentation.

MOTION Dave Phillips moved to notify the thirty jurisdictions to appoint a member to the LGCAC by a certain date and half of the number of respondants by that date, would constitute a quorum. Also, the LGCAC should select their own chairperson who would represent the LGCAC at SWPAC meetings.

Seconded by Robert Harris, motion carried  
unanimously

•Volunteers for the Certification Units Task Force were requested, Kathy Cancilla Delyn Kies and Dave Phillips offered to become members

MOTION Craig Sherman moved the meeting adjourn at 2:00  
Seconded by Ed Gronke

Next Meeting - special meeting on March 31st, regular monthly meeting April 14.

Submitted by Pat Vernon



# Memo

METROPOLITAN SERVICE DISTRICT 527 S.W. HALL ST., PORTLAND, OREGON 97201-5287 503 221-1646  
Providing Zoo, Transportation, Solid Waste and other Regional Services

Date: March 20, 1986

To: Solid Waste Advisory Committee

From: Mary Jane Aman  
Solid Waste Dept.

Regarding: Enclosed and upcoming special meeting

We have enclosed a copy of the upcoming council agenda item on the Waste Reduction Program. This packet was printed by the Council staff so includes some items you may already have.

Also attached is the revision to the Mission and Procedures of the Local Government Advisory Group per your discussions at the March 17th meeting.

IMPORTANT CHANGE: The upcoming special meeting on March 31st will be held from 12:30 p.m. to 1:30 p.m. This is a change from the original time of Noon. There is a meeting in the Council room from 10:00 a.m. to Noon that might cause a problem for SWPAC Parking. We felt this change would help you in parking.

NAME: \_\_\_\_\_

3/31/86

ITEM #	YES	NO	ABSTAIN
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5	9		1
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9	8		2
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Promotion + Educa.  
 Plastic Reduction ad.  
 Packaging Reduc. leg.  
 Salvage Building Material  
 Waste Exchange

Reduce + reuse

233  
 4392  
 480

NAME: Bob Harris

3/31/86

ITEM #	YES	NO	ABSTAIN
1	X		
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*no change  
with  
MTRD*

NAME: Michael PRONOLD

3/31/86

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NAME: Delyn Kies

3/31/86

ITEM #	YES	NO	ABSTAIN
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NAME:

Kathy Cancellu

3/31/86

ITEM #	YES	NO	ABSTAIN
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NAME:

Carolyn Browne

3/31/86

ITEM #	YES	NO	ABSTAIN
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20		✓	
21		✓	
22		✓	

1:45P  
I have to leave the meeting  
but basically  
agree with what  
is on the board  
for Home 12-22.  
Carolyn Browne

NAME: Teresa Dehorenzo

3/31/86

ITEM #	YES	NO	ABSTAIN
1	✓		
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NAME:

CRAIG SHERMAN

3/31/86

ITEM #	YES	NO	ABSTAIN
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8	✓		
9	✓		
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12	X		
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NAME: Shirley Coffin

3/31/86

ITEM #	YES	NO	ABSTAIN
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NAME:

Bruce Rawls

3/31/86

ITEM #	YES	NO	ABSTAIN
1	X		
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NAME: EP GORDON

3/31/86

ITEM #	YES	NO	ABSTAIN
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20	X		
21	X		
22	X		



# Memo

METROPOLITAN SERVICE DISTRICT 527 S.W. HALL ST., PORTLAND, OREGON 97201-5287 503 221-1646  
Providing Zoo, Transportation, Solid Waste and other Regional Services

Date: March 27, 1986

To: Metro Council

From: Douglas Drennen *DD*

Regarding: Premium Cost for Alternative Technology

One comment made by DEQ regarding our Waste Reduction Program submitted in January, pertains to the commitment to alternative technology as part of the solution to solid waste disposal. Specifically, the DEQ's comment is:

"The Metro Council must commit 1,300 tons per day of waste to alternative technology, or commit to establishing a price cap and allocating as much of the 1,300 tons as can be processed within that price cap".

\*1,300 tons/day represents approximately 48% of the waste generated.

In response to this comment, the staff is developing an approach to enable the Council to determine a price cap. In comparing the cost of an alternative technology to the true landfill cost, there are many economic factors that need to be considered. Two issues which should be considered are; impacts on the existing transfer system (ie. transportation costs), and the long range economic impacts. The price cap concept developed should allow Metro to determine economic feasibility by evaluating these cost criteria as well as the difference in cost between landfilling and resource recovery.

The approach that is being developed is discussed in the attached document. It suggests to Council that in addition to looking at the cost/ton of alternative technology, that the Council also look at the cost of a disposal system with resource recovery and without. This same approach was used by R.W. Beck to provide information for Council's review of the Oregon City project.

In addition to the system cost, the lifecycle cost (ie. entire cost of the alternative over its useful life) should also be considered. This is somewhat more complex in that each project, because of its marketing arrangements and financial strategy, among other variables, are difficult to project.

The lifecycle cost can be generated using typical projects and normalizing them for Metro's conditions. It will reflect a minimum risk position which is the present approach used in the RFQ/I. Cost for resource recovery will be higher than if calculated based on Metro accepting greater risk.

Your review and understanding of the approach will greatly enhance our discussion of the premium cost issue at the workshop to be scheduled in April. The items to be discussed at the workshop include:

1. Review of current alternative technology project cost.
2. Variables which affect the cost of alternative technology projects
- 2a. Comparison of benefits of landfill based system vs. resource recovery based system
3. Impact of alternative technology project on total system cost
4. Impact of alternative technology over a set time period.
5. Review of the cost of landfilling studies (DEQ and Metro)
6. Review selection criteria for RFQ evaluation
7. Report on industry reaction to Metro RFQ

From this workshop it is intended to complete an ordinance that will address both the economic feasibility tests to be applied for a decision of whether to proceed with alternative technology, and to adequately address DEQ's comments to the Waste Reduction Plan.



**BACKGROUND INFORMATION FOR  
DETERMINATION OF PREMIUM COSTS FOR  
METROPOLITAN SERVICE DISTRICT**

**Introduction**

The Metropolitan Service District (Metro) has adopted a policy of Alternative Technology (AT) for 453,000 tons per year of solid waste from its waste stream. Clark County, Washington has recently brought forth its interest in combining its 100,000 tons per year with that of Metro's for AT/resource recovery. Metro has initiated a procurement process for contractors to bring forth resource recovery project(s) that can be implemented to meet this objective. Metro is open to various sizes of plants, keeping in mind its AT heirarchy and the AT policy of implementing the maximum practicable feasible projects for up to 453,000 tons per year. Furthermore, Metro is required by DEQ to adopt a premium costs policy for having Metro's service system include resource recovery. A premium cost policy must be adopted by Metro ordinance by June 13, 1986 for submission to DEQ. DEQ is required to act on this policy in June 1986. This memorandum describes the methodology by which the determination of premium costs will be calculated by Metro staff and advisors for consideration by the Council.

**System Cost Concept**

It is proposed that costs be compared for several different systems of Metro facilities and functions. These different systems would represent a probable set of alternatives that can be logically forecasted at this time. In so doing, it must be recognized that these systems are forecasts of the future and the costs associated with them. Costs cannot be precisely estimated at this time since site-specific and project specific assumptions cannot be made. Best efforts will be made to forecast system costs based upon (a) Metro's current costs for operation; (b) DEQ and Metro's forecast of future true cost of landfill; and (c) recast costs of various resource recovery facilities based upon recently financed projects and local economic factors.

The different systems that would be developed are summarized as follows:

System A  
(BASE CASE)

Continued Reliance on landfill disposal for 453,000 tons per year, using 3 transfer stations feeding this new landfill. It is assumed that the landfill is \_\_\_ miles from the nearest transfer station.

System B

Composting and Materials processing at 3 transfer station locations and shipment of RDF to several dedicated/existing boilers in region, and land disposal of 113,250 tons per year\* of processing/combustion by-products. Transportation assumptions will consider potential markets for RDF products.

System C

Direct haul to 2 different resource recovery facilities whose combined tonnage is 453,000/553,000 tons per year. These facilities would serve existing steam markets and displace use of other fuels. This could eliminate 1 major transfer station. The 2 other transfer stations would haul to a new landfill site. Transfer stations would continue to allow for public access for waste delivery and recycling.

System D

Same as System C except 2 electrical generating plants.

System E

One larger resource recovery facility generating electricity only using 453,000 tons per year of waste directly hauled to the plant. Two transfer stations would operate at the same level and haul waste to a new landfill. All facilities would continue to allow public access for waste delivery and recycling.

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\*Estimated to be 25 percent by weight of input tonnage.

It is proposed that system costs be developed and presented graphically. A range of costs would be presented for systems that include resource recovery project(s) to illustrate both the different size and AT choices that currently exist. Shown in the attached Exhibit 2 is an example format and graphical concept of how this information would be presented. For each system option considered, a total yearly system cost will be displayed in Exhibit 2.

For the years 1980 through 1990, past and current cost data on Metro's existing system would be used to make current system cost entries and projections using the St. Johns Landfill as the disposal point. Beyond 1990, the location of the new landfill resources will be assumed to be \_\_\_\_\_ miles from the nearest Metro transfer point. DEQ has recently initiated an evaluation of alternative sites for landfill capacity that Metro will utilize. Additionally, it is expected that landfill operating regulatory requirements will be greater than in the past thus increasing operational cost requirements for land disposal based systems in the future. Future costs projections for new landfill capacity will include the establishment of reserve funds for landfill consumption use and perpetual maintenance and landfill closure expenses as well. For resource recovery project(s), it will be assumed that the project(s) will be located within the tri-County region and not cause any significant increase in transportation system cost element to get waste to the resource recovery facility(ies). However, it will be assumed that residues from the resource recovery facility(ies) will be transported to the same new landfill. An array of resource recovery project costs will be developed utilizing recently financed/implemented resource recovery projects across the U.S. A listing of the projects that will be used as a basis for building cost elements for the resource recovery system are listed in Exhibit 3. This list includes a mix of various size facilities, technology type, risk posture, procurement and financing methods since it is not clear which specific type of technology or methods or size would be selected by Metro at this time. The costs for these resource recovery projects will be normalized for such factors as inflation rate and value of products to reflect current economic conditions both on a national basis as well as on a regional basis. Metro will add these cost elements to other system elements using its already developed cost models.

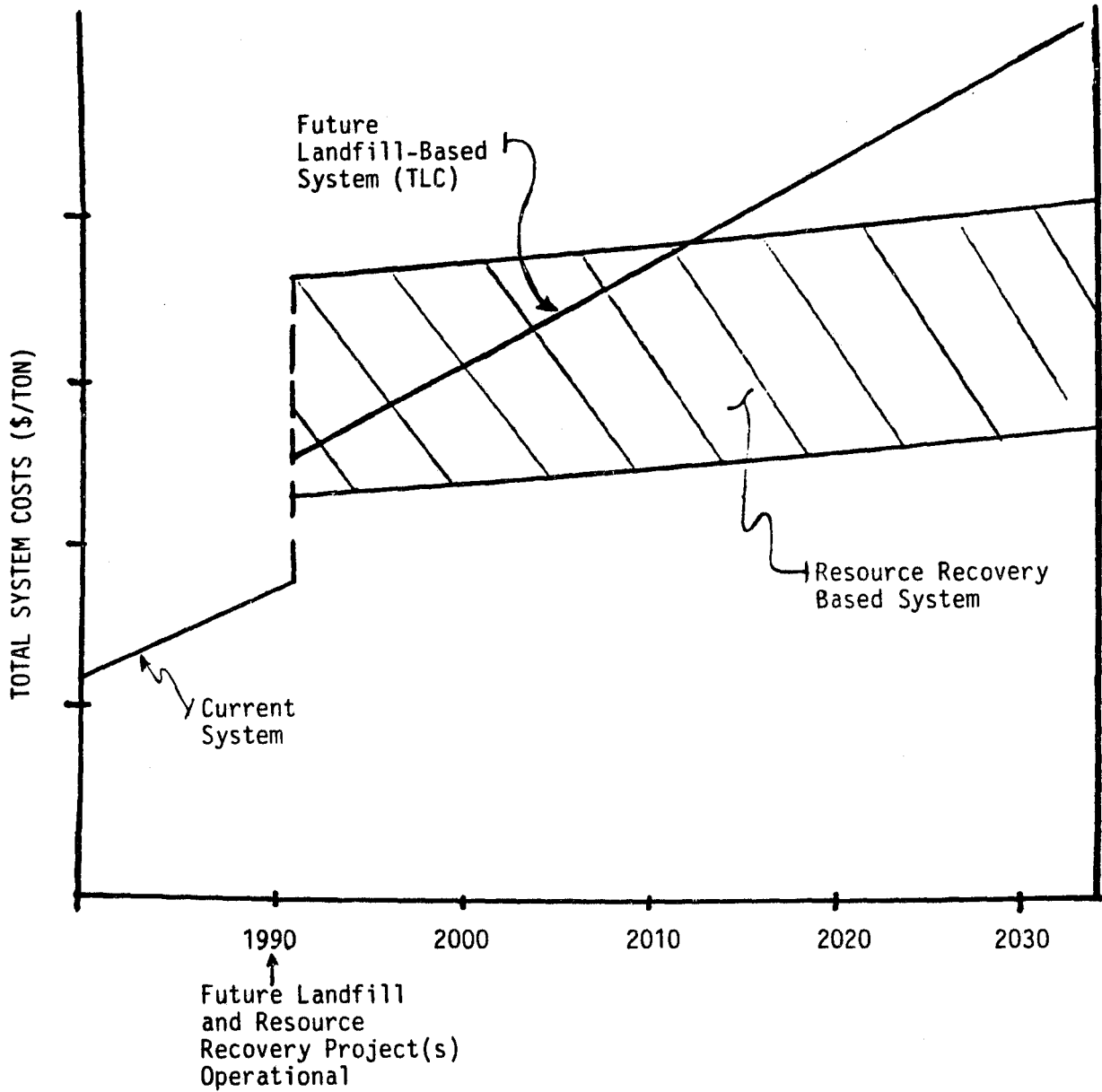
**EXHIBIT 1**  
**MATRIX OF METRO SYSTEM ALTERNATIVES**

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
<b><u>TRANSFER STATIONS</u></b>					
. CTRC	X	X	X	X	X
. WTRC	X	X	X	X	X
. Future TRC	X	X	Elimin- nated	Elimin- nated	Elimin- nated
<b><u>ALTERNATIVE TECHNOLOGY</u></b>					
. Composting/ Materials Re- covery at 3 Transfer Sta- tions	-	X	-	-	-
. Steam/Elec. Generating Resource Re- covery Facility for approximately 150,000 TPY	-	-	1-X	1-X	-
. Steam/Elec. Resource Re- covery Facility for approximately 300,000 TPY	-	-	1-X	1-X	-
. Electric Gen- erating Resource Recovery Facility for 453,000 TPY	-	-	-	-	1-X
<b><u>LANDFILL</u></b>					
. Future Landfill	X	X- reduced	X- reduced	X- reduced	X- reduced

X = Operating  
- = Not Operating

EXHIBIT 2

METRO SYSTEM COST  
LIFE CYCLE CONCEPT



**Exhibit 3**  
**Recently Financed/Implemented**  
**Resource Recovery Projects**  
**To Be Used In Metro**  
**Premium Cost Analysis**

<u>Location</u>	<u>Technology</u>	<u>Plant Size (TPD)</u>	(\$ Million)	
			<u>Bond Size</u>	<u>1 Year Financed</u>
Connecticut, Hartford	RDF DB	2,000	178	1985
Maine, Biddeford	RDF DB	500	81	1985
Massachusetts, Springfield	MB-Modular	360	31	1985
Massachusetts, North Andover	MB-Waterwall	1,500	104	1983
New York, Babylon	MB-Waterwall	750	89	1985
Pennsylvania, Erie	RDF -Fluid Bed	600	70	1985
Georgia, Savannah	MB-Refractory	500	35	1981
Connecticut, Bridgeport	MB-Waterwall	2,250	240	1985
Florida, Tampa	MB-Refractory	1,000	115.6	1983
Oregon, Marion Co.	MB-Waterwall	550	19(?)	1984
Delaware, New Castle County	Compost, Materials Recovery, DB (This is a combination of Raytheon-Fairfield and Crouse-Vicon Projects.)	600	+18	___/1984

RDF = Refuse Derived Fuel  
 MB = Mass Burn  
 DB = Dedicated Boiler

EXAMPLE ONLY

Exhibit VIII-1

METROPOLITAN SERVICE DISTRICT

Estimates of the Cost of Disposal of Alternative Systems  
(Cost per Ton as Expressed in 1982 Dollars) (1)

ALTERNATIVE	<u>5</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>6</u>
	<u>Lndfl</u> CTRC	<u>Lndfl</u> CTRC 1 TS	<u>Lndfl</u> CTRC ERF 1 TS	<u>Lndfl</u> CTRC 2 TS	<u>Lndfl</u> CTRC ERF 2 TS	<u>Lndfl</u> CTRC ERF
<u>Cost Component</u>						
Administration & Enforcement	\$ 1.31	\$ 1.31	\$ 1.51	\$ 1.31	\$ 1.51	\$ 1.51
Wildwood Disposal (2)	11.23	11.23	7.33	11.23	7.33	7.33
ERF Disposal (3)	-	-	11.91	-	11.91	11.91
Ash Disposal at Wildwood	-	-	.80	-	.80	.80
Ash Haul	-	-	.59	-	.59	.59
Subtotal: Disposal Cost	<u>12.54</u>	<u>12.54</u>	<u>22.14</u>	<u>12.54</u>	<u>22.14</u>	<u>22.14</u>
Plus						
Transfer Station Debt Service	0.33	1.26	1.26	1.56	1.56	0.33
Transfer Station O&M	1.01	2.94	2.48	3.58	3.21	1.01
Transfer Haul	0.90	3.85	2.34	3.99	2.56	-
TOTAL PROCESSING COST	<u>14.78</u>	<u>20.59</u>	<u>28.22</u>	<u>21.67</u>	<u>29.47</u>	<u>23.48</u>
Collection Haul	<u>17.17</u>	<u>10.35</u>	<u>10.09</u>	<u>8.58</u>	<u>8.46</u>	<u>14.00</u>
TOTAL COST OF ALTERNATIVES	\$31.95	\$30.94	\$38.31	\$30.25	\$37.93	\$37.48
<u>Cost/Ton</u>						
Alternatives With ERF						
Alternative 2	\$38.31					
Alternative 4	37.93					
Alternative 6	37.48					
Alternatives Without ERF						
Alternative 1	30.94					
Alternative 3	30.25					
Alternative 5	31.95					

Legend: Ldnfl: Wildwood Landfill  
CTRC: Clackamas Transfer and Recycling Center  
ERF: Energy Recovery Facility  
TS: Transfer Station

- (1) Total annual costs have been divided by 848,000 TPY to convert to unit cost per ton.  
(2) Value as estimated by R. W. Beck. See Section VII.  
(3) Cost of disposal as estimated by METRO staff, calculated as follows:  
(\$11.64 per ton Service Fee Payment to WFI + \$4.55 per ton Property Tax Payment + \$3.01 per ton Pipeline Payment) = \$19.20 per ton.  
\$19.20 X 526,000 TPY = \$10,099,200  
\$10,099,200 divided by 848,000 TPY = \$11.91 per ton.