



Umetco Minerals Corporation

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January 9, 2009

Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs
U.S. Nuclear Regulatory Commission
Two White Flint North
11545 Rockville Pike
Mail Stop T7E18
Rockville, Maryland 20855-2738

Subject:

Reference: Materials License SUA-648; Docket No. 40-0299

Dear Mr. McConnell:

This is in response to U.S. Nuclear Regulatory Commission (NRC) request for additional information dated October 27, 2008 regarding Umetco Minerals Corporation's (Umetco) 2008 Surety Update for the Gas Hills, Wyoming site.

NRC Comment No. 1. Please provide additional information justifying that the cost of fencing provided for the restricted area boundary is appropriate.

Basis: Per 10 CFR 40, Appendix A, Criteria 9, the licensee's cost estimate must take into account total costs that would be incurred if an independent contractor were hired to perform the decommissioning and reclamation work.

Discussion: Provide a detailed cost estimate for the length of fencing needed to limit access to the restricted area, as well as the specific cost for materials and labor.

Response to Comment No. 1 – All fence work required to restrict access to the site was completed in September, 2008. Fencing work was constructed in accordance with DOE standards and to specific the alignment requested by DOE.

NRC Comment No. 2. Please provide a justification as to why the Additional Costs included in Umetco Minerals Corporation's previously approved 2006 Surety Update, dated June 13, 2006, are no longer applicable.

Basis: Per NUREG-1620, Rev. 1, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act of 1978," Appendix C, project management costs, license termination costs, and other miscellaneous costs should be included in the cost estimate.

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Discussion: These miscellaneous costs were previously included in Umetco Minerals Corporation's previously approved 2006 Surety Update, dated June 13, 2006. This approved 2006 Surety Update included an \$819,973 dollar cost for additional expenses. These additional expenses included items such as: a salary for a Site Radiation Safety Officer, and site utilities. Additional discussion is needed to explain why these costs no longer need to be included in the 2008 Surety Update.

Response to Comment No. 2 – Review of our records indicate that the cost detail for the \$819,973 additional expense was established by Umetco submittal dated September 29, 2004, Response to NRC Request for Additional Information Concerning Umetco's Financial Surety Estimate for the Gas Hills Uranium Tailings Site. A copy of this submittal is attached.

Umetco's September, 29, 2004 submittal, provided specific detail which the \$819,973 additional expense was based on. The attached Table 1 summarizes the additional expense cost and status of items which were included in the subject amount. As indicated on the table, the majority of these costs were associated with items which have been completed or are no longer necessary. However, there are some costs associated with this estimate that are still required at the site, i.e., property tax, RSO involvement, etc. Accordingly, the attached Table 1 describes the current status of additional expense items and provides a CPI adjustment to 2008. The amount of \$120,624 should be added to the required surety amount proposed in Umetco's June 13, 2008 Surety Update submittal making the total NRC required surety amount \$1,131,228.

If you have any questions or comments concerning this submittal please contact me at (970) 256-8889 or by e-mail at gieckte@dow.com.

Sincerely,



Thomas E. Gieck
Remediation Leader

TEG

Attachments: As Stated

Copy: Mark Moxley – WDEQ-LQD

Table 1
Response to Request for Additional Information - NRC Comment No. 2

Item/Issue	2004 Amount	Status	Revised Amount
Response to Comment No. 1			
A-9 Gamma Survey	3,000	Complete	0
GHP No. 2 Gamma Survey	1,500	Complete	0
Soil Verification for A-9 Haul Road	7,070	Complete	0
Decon/Survey for Unrestricted Release of Laboratory Trailer	364	Complete	0
Decon of Laboratory Trailer	n/a	n/a	n/a
Response to Comment No. 2			
Cost Included in Response to Comment No. 3	n/a	n/a	n/a
Response to Comment No. 3			
Project Manager (Consultant, Construction Mgt.)	144,480	Complete No Longer Required	
Site Superintendent	123,840	Complete No Longer Required	
Radiation Safety Officer	123,840	20% of Full Time	24,768
Consulting Engineer	100,000	Complete No Longer Required	
Site Utilities (Gas, Elec., Taxes, Insurance, etc.)	25,000	Buildings and Utilities Removed - Tax Only	2,500
Legal Expenses	50,000	Associated with Land Transfer	50,000
Response to Comment No. 4			
Remainaing A-9 Rock Placement Costs	15,090	Complete	0
Response to Comment No. 5			
Additional LTSP Funds	n/a	n/a	n/a

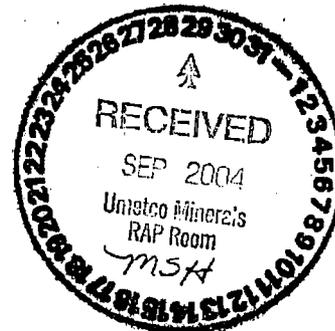
	594,184		77,268
10% Overhead =	59,418	10% Overhead =	7,727
10% Profit =	59,418	10% Profit =	7,727
Subtotal with Overhead and Profit =	713,021	Subtotal with Overhead and Profit =	92,722
15% Contingency =	106,953	15% Contingency =	13,908
Total 2004 Additional Surety Amount =	819,974	Total 2004 Additional Surety Amount =	106,630
		9/2004 CPI	189.9
		04/2008 CPI	214.823
		04/2008 Additional Surety Amount	120,624

Umetco Minerals Corporation



P.O. BOX 1029
GRAND JUNCTION, COLORADO 81502
☎ (970) 245-3700

September 29, 2004



Ms. Elaine Brummett, Project Manger
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
Mail Stop T-8-A-33
Two White Flint North, 11545 Rockville Pike
Rockville, Maryland 20852-2738

**Re: Response to NRC Request for Additional Information Concerning Umetco's
Financial Surety Estimate for the Gas Hills Uranium Tailings Site**

Reference: Materials License SUA-648, Docket No. 40-0299

Dear Ms. Brummett:

Enclosed please find Umetco's response to NRC request for additional information, dated September 2, 2004, concerning the financial surety baseline estimate submitted July 1, 2004.

The enclosed response document contains specific responses and cost calculations to address the NRC request. As a result, the financial surety estimate has increased by \$819,973. This amount has been shown as a line item on the revised Cost Summary Sheet (enclosed).

If you have any questions or comments concerning this request please contact me at (970) 256-8889 or by e-mail at gieckte@dow.com.

Sincerely,

Thomas E. Gieck
Remediation Leader

Copy: Mark Moxley – WDEQ-LQD
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UMETCO MINERALS

Cost Summary

Project Area	Estimated Cost (\$)
GHP No. 2 Reclamation	2,404,515
C-18 Pit Reclamation	604,898
B-5/North and South Evaporation Pond Reclamation	3,929,532
Windblown (aka FSSP)	202,865
B-Spoils Area	310,829
Groundwater Monitoring	37,746
Additional Cost - Response to NRC Review Comments ⁴⁾	<u>819,973</u>
Total Costs Including Overhead, Profit and Contingency =	<u>8,310,358</u>
Long-Term Surveillance Fee =	698,301
Final Completion Report =	<u>100,000</u>
Total NRC Surety Required =	<u>9,108,659</u>
DEQ Required Surety =	<u>2,829,359</u>
Total Surety Requested =	<u>11,938,018</u>

- 1) Estimate assumes A-9 reclamation cover completed during 2004 construction season, with exception remaining erosion protection left to facilitate economical placement of GHP No. 2 cover (as authorized by License amendment 53). NRC inspection scheduled for Oct. 2004.
- 2) December 1978 CPI = 67.7
May 2004 CPI = 189.1
250,000 divided by 67.7 times 189.1 = \$698,301.33 (Long-Term Surveillance Fee)
- 3) Costs shown above are inclusive of contractor's overhead (10%) and profit (10%) applied to unit costs for the work. A 15% contingency has been applied to each project area total cost.
- 4) Cost summary sheet has been revised to include additional costs developed in response to NRC review comments dated September 2, 2004.

Response to NRC Request for Additional Information Concerning the Umetco Minerals Corporation's Surety Estimate for the Gas Hills Uranium Mill Tailings Site, SUA-648 (TAC NO. LU0051)

NRC Comment No. 1 – *The staff's recent review of the Umetco Final Status Survey Report (FSSR) indicates that the gamma survey for the A-9 and Pond 2 cell covers and soil verification for the A-9 haul road have not been done. Also, page 4 of the FSSR indicates that the laboratory (trailer) will be surveyed and released for unrestricted use and Umetco also indicated that another soil laboratory will be demolished and placed in the A-9 Repository.*

REQUEST – *Umetco should indicate where the cost estimates for these activities are provided in the surety cost estimate.*

Response to Comment No. 1 – The estimated cost and or location of cost in the surety for each of the items noted in Comment 1 are as follows:

- **A-9 Gamma Survey** – Although field work for this task has been completed, the data has not been provided to the NRC. Accordingly, the estimated cost for this work, shown below, will be added to the surety estimate.

Unit Cost Calculation for A-9 Gamma Survey (60 acre area)	Unit Cost
→ Field measurements assumes 2 technicians (at \$35/hour) making 2 measurements per hour at a minimum density of 1 measurement per acre.	
0.5 hours/acre @ \$70/hour =	\$35/acre
→ Data Verification and Mapping	
8 hours @ 45/hour = \$360; \$360/60 acres =	\$6/acre
→ Data review and report preparation	
8 hours @ \$70/hour = \$560; \$560/60 acres =	\$9/acre
Unit Cost Per Acre =	\$50/acre
60 Acre A-9 Gamma Survey at \$50 per Acre =	\$3000

- **GHP No. 2 Gamma Survey** – The estimated cost for this work, shown below, will be added to the surety estimate:

→ Using the unit cost calculated above the estimated cost for the GHP No. 2 Gamma calculated as follows:

30 Acre GHP No. 2 at \$50 per Acre = \$1500

- **Soil Verification for the A-9 Haul Road** – Field work for this task has been completed and soil samples are currently in the laboratory for analysis. Since survey has not been submitted to the NRC, the estimated cost, shown below, for this work will be added to the surety estimate.

➤ Soil verification will consist of gamma survey to determine soil Ra-226 concentrations and soil sampling of 24 100 square meter grid blocks.

→ Field Survey – assume 2 technicians (\$35/hour/technician), completing 2 grids per hour:
 0.50 hours per grid block @ \$70/hour = \$35/grid block; 24 grid blocks @ \$35 = \$840

→ Field Sampling – assume 2 technicians (35/hour/technician), 16 hours to perform soil sampling, sample preparation and field documentation.
 16 hours @ \$70 per hour = \$1,120

→ Laboratory Analysis:

U-nat	\$12.80
Ra-226	\$110.00
Th-230	\$70.00
Analysis Cost/Sample =	\$192.80

24 samples @ 192.80/sample = \$4,627

→ Data Review and Report Preparation:

16 hours @ 70/hour = \$1,120

Total Cost A-9 Haul Road Soil Verification = \$7,707

• Decontamination/Survey for Unrestricted Release of Laboratory Trailer – Preliminary radiological survey of trailer clean and will not require significant decontamination. Accordingly, costs of reasonable cleaning and survey time, shown below, are assumed.

→ Cleanup/decontamination:

2 laborers (\$10.48/hour/laborer) @ 4 hours each; or (\$10.48/hour)(4 hours)(2) = \$84

→ Radiological Survey:

2 technicians (\$35/hour/technician) @ 4 hours each; or (\$70/hour)(4 hours) = \$280

Total Cost for Laboratory Trailer Decontamination and Radiological Survey = \$364

• Demolition of Laboratory Trailer – Cost for this work are included in GHP No. 2 cost estimate. Plan for GHP No. 2 includes provisions for demolition and disposal of this trailer.

NRC Comment No. 2 – *Costs for radiation and quality control technicians are provided but not for the site Radiation Safety Officer (RSO).*

REQUEST – *Umetco should provide, or indicate where the cost for the RSO is itemized.*

Response to Comment No. 2 – See response to Comment No. 3

NRC Comment No. 3 – *The project management costs and other miscellaneous costs should include insurance, taxes, management review and supervision, as well as legal, NRC, and other expenses related to license termination (see NUREG-1620, Appendix C).*

REQUEST – *Indicate where the above mentioned items are included in the cost estimate.*

Response to Comment No. 3 – The following provides an itemized cost estimate associated with project management; engineering oversight and preparation of completion report; legal expenses; utilities (gas and power); and Radiation Safety Officer (refer to Comment 2). These expenses are assumed for a two year period. Engineering design costs are not assumed since reclamation plans for this site have been completed and approved. Costs associated with quality control testing, quality control technicians and radiation technicians are included in the project costs.

Item	Comment	Estimated Annual Cost
Project Manager	Full Time Consultant \$70/hr x 2,064 hr/yr =	\$144,480
Site Superintendent	Full Time Consultant \$60/hr x 2,064 hr/yr =	\$123,840
Radiation Safety Officer	Full Time Consultant \$60/hr x 2,064 hr/yr =	\$123,840
Consulting Engineer	Estimated annual fee	\$100,000
Site Utilities	Gas, Elec., Taxes, Insurance, etc.	\$25,000
Legal Expenses	Estimated annual fee	<u>\$50,000</u>
Total Project Management and Miscellaneous =		\$567,160

NRC Comment No. 4 – *The Umetco letter of July 1, 2004, indicated that the A-9 Repository cover construction should be complete in July 2004.*

REQUEST – *Indicate the date that the A-9 Repository cover construction was completed.*

Response to Comment No. 4 – The A-9 Repository Reclamation Cover was completed on August 23, 2004 with the minor quantities of erosion protection left unplaced to facilitate economical placement of the GHP No. 2 cover as discussed by license amendment 53. Placement costs for remaining erosion protection to be completed upon completion of the GHP No. 2 cover are provided below and will be added to the surety estimate.

Remaining A-9 Rock Placement Costs			
Erosion Protection Type	Quantity	Unit Price ¹⁾	Amount
Type B (D ₅₀ = 3")	1,500 CY	5.03	\$7,545
Type C (D ₅₀ = 6")	1,500 CY	5.03	\$7,545
Total Remaining A-9 Erosion Protection Rock Placement =			\$15,090

¹⁾ Unit cost based on GHP No. 2 Erosion Protection Placement Costs; erosion protection material is stockpiled on site; unit cost includes overhead and profit.

NRC Comment No. 5 – *The Long-Term Surveillance fee was calculated correctly for the base amount but there is no indication of additional amounts should be provided for fence maintenance, ground water monitoring, etc.*

REQUEST – *Indicate if the Long-Term Surveillance fee should have additional funds for site specific monitoring or control activities needed after termination of Umetco license.*

Response to Comment No. 5 – DOE has completed a draft LTSP for the Gas Hills site and indicated submittal to NRC for review in October 2004. In a phone conversation with DOE contractor (Mark Plessinger) on September 8, 2004, DOE indicated they have not identified any costs above or beyond those that would be covered by the minimum LTSP fee established in the surety estimate.

Summary of Surety Cost Increase Contained in Response to NRC Comments dated September 2, 2004

Response to Comment No. 1

- | | |
|--|-------|
| • A-9 Gamma Survey | 3,000 |
| • GHP No. 2 Gamma Survey | 1,500 |
| • Soil Verification for A-9 Haul Road | 7,070 |
| • Decon./Survey for Unrestricted Release of Laboratory Trailer | 364 |
| • Demolition of Laboratory Trailer | n/a |

Response to Comment No. 2

- | | |
|--|-----|
| • Cost Included in Response to Comment No. 3 | n/a |
|--|-----|

Response to Comment No. 3

- | | |
|--|---------|
| • Project Management and Miscellaneous | 567,160 |
|--|---------|

Response to Comment No. 4

- | | |
|--------------------------------------|--------|
| • Remaining A-9 Rock Placement Costs | 15,090 |
|--------------------------------------|--------|

Response to Comment No. 5

- | | |
|-------------------------|-----|
| • Additional LTSP Funds | n/a |
|-------------------------|-----|

Total Additional Cost without Overhead, Profit & Contingency =	\$594,184
10% Overhead =	59,418
10% Profit =	59,418
Subtotal with Overhead and Profit =	\$713,020
15% Contingency =	106,953
Total Additional Surety Required =	\$819,973