

Canonie Environmental

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RETURN ORIGINAL TO PDR, HQ.

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December 7, 1990

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Mr. Ramon Hall
U.S. Nuclear Regulatory Commission
Uranium Recovery Field Office
P.O. Box 25325
Denver, CO 80225

Request for Cost Details
United Nuclear Corporation's Proposed Design Modifications

Dear Mr. Hall:

United Nuclear Corporation has asked that we respond to a request from Mr. Paul Michaud of your staff for the above referenced information. The costs contained herein are 1990 costs. For example, the \$2.00/c.y. figure includes an adjustment for inflation from the \$1.80/c.y. cost used in the August 1988 cost estimate submitted to NRC. Also, the \$25.00/c.y. riprap figure used herein reflects the size of rock to be used for rock mulch as well as the fact that a source of rock closer to the site than was assumed in 1988 has been identified. We used figures in the \$40-42 range in 1988.

Pipeline Arroyo

The \$492,000 estimated cost savings would result because in the original plan we would have excavated 381,000 cubic yards from Pipeline Arroyo and the tailings embankment, placing the soil on the tailings to form the soil cover. This excavation and placement would cost \$2.00/c.y., for a total cost of \$762,000.

Our proposed design modification would call for excavation of 118,000 cubic yards from Pipeline Arroyo and the tailings embankment at \$2.00/c.y. and would require 1,360 cubic yards of imported stone to construct the buried jetty at a cost of \$25.00/c.y. The proposed modification would cost \$270,000; hence the savings of \$492,000.

Embankment Sideslopes

The original design called for construction of several interceptor ditches across the face of the embankment and a runoff control ditch at the bottom of the embankment. The ditches would have been excavated at nominal additional cost to construction of the embankment. However, the runoff control ditch would have been riprapped with rock at \$25.00/c.y. It would have required 6,000 cubic yards of riprap, at a cost of \$150,000.

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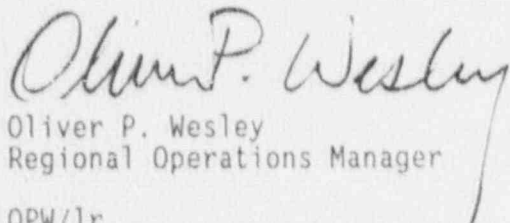
The proposed modified design would delete the interceptor ditches and would add a 3 inch rock mulch layer over a 9.4 acre embankment area, requiring 3,800 cubic yards at \$25.00/c.y. This would be added to the cost of the runoff control ditch for a total cost of \$245,000; hence the additional cost of \$95,000.

Tailings Soil Cover

The cost of the originally designed soil cover was included in the excavation of Pipeline Arroyo. However, there would have been an additional cost of \$119,000 to vegetate the soil cover.

The proposed modified design would require that in addition to the soil placed as cover 48,350 cubic yards of rock mulch would be imported at \$25.00/c.y. and 72,500 cubic yards of soil at \$4.00 c.y. would be placed to construct the soil/rock matrix erosion protection layer. The soil/rock matrix layer would, therefore, cost \$1,499,000; hence the added cost of \$1,380,000 upon deducting the vegetation cover.

Very truly yours,



Oliver P. Wesley
Regional Operations Manager

OPW/lr

cc: Steve Barringer, Holland & Hart Law Firm
Ridgway Hall, Crowell & Mooring Law Firm
Richard Lange, United Nuclear Corp.
P. X. McLain, United Nuclear Corp.
Ed Morales, United Nuclear Corp.
Juan R. Velasquez, United Nuclear Corp.