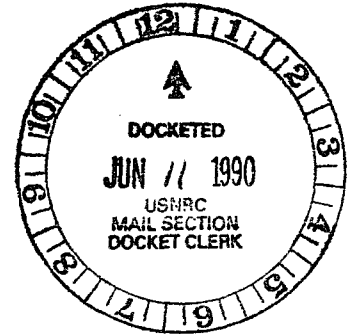




Department of Energy
 Albuquerque Operations Office
 P.O. Box 5400
 Albuquerque, New Mexico 87115

JUN 06 1990

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



Dear Mr. Hall:

Pursuant to your letter dated May 14, 1990, enclosed are the requested placement volume records (Item 1 of your letter) for the radon barrier material placed at the Tuba City, Arizona, Uranium Mill Tailings Remedial Action (UMTRA) disposal cell.

The requested specifications and drawings resulting from Project Interface Documents 18-S-11 through 18-S-15 (Item 2) were provided to you by our letter dated May 14, 1990.

The independent but concurrent inspection held by our respective staffs at the Tuba City, Arizona, UMTRA site on April 23, 1990, was mutually successful. As requested in your letter, the following set of guidelines is provided for your consideration for future joint preliminary final or final site inspections.

1. The U.S. Department of Energy (DOE) will provide formal notification to the U.S. Nuclear Regulatory Commission (NRC) of a pending preliminary or final site inspection (Quality Assurance Audit).
2. At the designated on-site meeting mentioned in the notification, a copy of the preliminary or final DOE inspection check-list will be provided to the NRC and State/Tribe representatives.
3. The NRC will be free to perform an independent inspection. RAC personnel will be available to accompany NRC representatives, upon request, to facilitate the NRC inspection.
4. After inspection of the site and project documents, the State/Tribe representatives and NRC will meet with the DOE inspection team at a pre-arranged time and place to discuss the observations and to consolidate any recommendations. The DOE inspection team will meet separately with the RAC to advise them of any findings during the exit interview.

OFFICIAL DOCKET COPY

JUN 06 1990

Mr. Ramon E. Hall

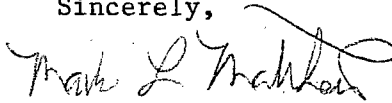
-2-

5. The DOE and NRC will return to their respective offices and write their independent reports. Both the DOE's and the NRC's reports will be included in the site completion report.

Since the above five points were successfully applied at the Tuba City site preliminary final inspection held by the DOE on April 23, 1990, the Project Office recommends to both the NRC Headquarters and the NRC Uranium Recovery Field Office staffs that the above guidelines be used. Adjustment to the guidelines can be made as necessary.

Should you have any questions, please contact Milt Scoutaris of my staff at FTS 845-5630.

Sincerely,



Mark L. Matthews
Project Manager
Uranium Mill Tailings Remedial Action
Project Office

Enclosure

cc w/o enclosure:

M. Abrams, UMTRA
P. Lohaus, NRC
K. Agogino, JEG
B. Bearden, JEG
P. Cate, MK-F



MK-Ferguson

COMPANY

OPERATION

ITEM NO.

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JOB

QUANTITY

UNIT

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DATE

Radon Barrier Material

Date	Placed Qty.			Compacted Qty.			Tests Taken				Total Tests		Total Est. Area/Passing Test (sq. ft.)	Remarks
	Prev.	Placed	Accum.	Prev.	Comp.	Accum.	Pass	Fail	P-Rtest	F-Rtest	Pass	Fail		
03/16/89	88,409	3772	92,181	41,844	-0	41,844	3	-0	-0	-0	98	9	427	
03/17	92,181	4991	97,172	41,844	1,296	43,140	2	-0	-0	-0	100	9	431	
03/20	97,172	3266	100,438	43,140	-0	43,140	1	-0	-0	-0	101	9	427	
03/21	100,438	-0	100,438	43,140	-0	43,140	-0	2	-0	-0	101	11	427	
03/23	100,438	-0	100,438	43,140	5,555	48,695	4	-0	2	-0	107	11	455	03/22 - Recomp.
03/27	100,438	-0	100,438	48,695	-0	48,695	2	-0	-0	-0	109	11	447	
03/28	100,438	-0	100,438	48,695	6,102	54,797	3	3	-0	-0	112	14	489	
03/29	100,438	6,095	106,533	54,797	6,426	61,223	-0	4	-0	-0	112	18	547	
03/30	106,533	5,957	112,490	61,223	-0	61,223	-0	4	-0	2	112	24	547	
03/31	112,490	-0	112,490	61,223	-0	61,223	-0	-0	1	2	113	26	542	
04/03	112,490	-0	112,490	61,223	3,227	64,450	3	13	-0	3	116	42	556	
04/04	112,490	-0	112,490	64,450	2,074	66,524	-0	4	-0	2	116	48	573	
04/05	112,490	5,520	118,010	66,524	2,259	68,783	4	2	10	2	130	52	529	
04/06	118,010	6,325	124,335	68,783	-0	68,783	-0	3	7	4	137	59	502	
04/07	124,335	-0	124,335	68,783	-0	68,783	-0	-0	8	-0	145	59	474	
04/10	124,335	5,083	129,418	68,783	-0	68,783	1	-0	2	-0	148	59	465	
04/11	129,418	4,646	134,064	68,783	611	69,394	2	-0	3	-0	153	59	454	
04/12	134,064	6,486	140,550	69,394	4,984	74,378	4	2	-0	-0	157	61	474	
04/13	140,550	5,589	146,139	74,378	1,778	76,156	2	4	2	-0	161	65	473	
04/17	146,139	2,783	148,922	76,156	3,023	79,179	3	2	3	1	167	68	474	
04/18	148,922	5,382	154,304	79,179	1,300	80,479	2	1	3	-0	172	69	468	
04/19	154,304	5,911	160,215	80,479	2,886	83,365	2	5	4	-0	178	74	468	
04/20	160,215	3,956	164,171	83,365	2,320	85,685	2	2	3	-0	183	76	468	
04/24	164,171	3,312	167,483	85,685	3,323	89,008	3	3	3	-0	189	79	471	
04/25	167,483	-0	167,483	89,008	1,893	90,901	-0	-0	2	-0	191	79	476	
04/26	167,483	4,692	172,175	90,901	3,917	94,818	4	3	2	-0	197	82	481	
04/27	172,175	4,531	176,706	94,818	750	95,568	3	-0	-0	-0	200	82	478	
05/01	176,706	-0	176,706	95,568	2,327	97,895	2	2	3	-0	205	84	478	
05/02	176,706	-0	176,706	97,895	4,051	101,946	5	-0	2	-0	212	84	481	
05/03	176,706	4,692	181,398	101,946	2,651	104,597	2	3	-0	-0	214	87	489	
05/04	181,398	4,343	185,741	104,597	3,971	108,568	1	2	3	-0	218	89	498	
05/08	185,741	4,508	190,249	108,568	1,357	109,925	5	1	2	-0	225	90	489	
05/09	190,249	4,554	194,803	109,925	4,293	114,218	2	1	1	-0	228	91	501	
05/10	194,803	-0	194,803	114,218	1,593	115,811	4	1	1		233	92	497	
05/11	194,803	3,588	198,391	115,811	2,765	118,576	4	1	-0	-0	237	93	500	
05/15	198,391	-50	198,341	118,576	-0	118,576	-0	-0	-0	-0	237	93	500	
05/15	198,341	2,484	200,825	118,576	3,511	122,087	2	4	4	1	243	98	502	
05/16	200,825	1,081	201,906	122,087	1,600	123,687	7	2	-0	2	250	102	495	
05/17	201,906	3,772	205,678	123,687	2,578	126,265	8	-0	4	-0	262	102	482	
05/18	205,678	4,117	209,795	126,265	3,996	130,261	5	6	5	2	272	110	479	

Adj. for 11/89



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COMPANY

OPERATION

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JOB

QUANTITY

UNIT

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DATE

Radon Barrier Material

Date	Placed Qty.			Compacted Qty.			Tests Taken				Total Tests		Total Est. Area/Passing Test (sqd)	Remarks
	Prev.	Placed	Accum.	Prev.	Comp.	Accum.	Pass	Fail	P-R test	F-R test	Pass	Fail		
05/22/89	209,795	3,910	213,705	130,261	2345	132,606	2	3	2	-0	276	113	480	
05/23	213,705	4,163	217,868	132,606	5165	137,771	9	2	2	1	287	116	480	
05/24	217,868	4,094	221,962	137,771	4320	142,091	9	0	2	1	298	117	477	
05/25	221,962	4,000	225,962	142,091	5315	147,406	7	4	3	-0	308	121	479	
05/29 - 06/01				Hol. day	Shut-down									→
06/05	225,962	4,049	230,010	147,406	3,500	150,906	5	2	2	-0	315	123	479	
06/06	230,010	4,347	234,357	150,906	3,390	154,296	6	1	2	-0	323	124	478	
06/07	234,357	4,439	238,796	154,296	3,760	158,256	7	1	0	-0	330	125	480	
06/08	238,796	4,117	242,913	158,256	4,280	162,536	6	3	1	-0	337	128	482	
06/12	242,913	4,600	247,513	162,536	3,410	165,946	4	3	3	2	344	133	482	
06/13	247,513	3,764	251,277	165,946	4,318	170,264	1	7	3	-0	349	140	489	
06/14	251,277	4,025	255,402	170,264	5,250	175,514	8	3	3	-0	359	143	489	
06/15	255,402	4,370	259,772	175,514	3,245	178,759	6	0	4	-0	369	143	484	
06/19	259,772	5,198	264,970	178,759	5,125	183,884	9	2	3	-0	381	145	483	
06/20	264,970	5,497	270,467	183,884	3,760	187,644	5	3	3	-0	389	148	482	
06/21	270,467	5,481	276,148	187,644	5,596	193,190	11	0	2	-0	402	149	481	
06/22	276,148	4,830	280,978	193,190	4,425	197,615	6	3	0	-0	408	151	484	
06/23	280,978	0	280,978	197,615	0	197,615	0	0	0	-0	408	151	484	Disregard! Error!
06/26	280,978	5,152	286,130	197,615	2,868	200,483	5	1	2	-0	415	152	483	
06/27	286,130	4,922	291,052	200,483	5,370	205,853	6	5	2	-0	423	157	487	
06/28	291,052	5,129	296,181	205,853	2,965	208,818	6	0	5	1	434	158	481	
06/29	296,181	4,094	300,275	208,818	5,499	214,317	7	4	4	-0	445	162	482	
07/05	300,275	4,301	304,576	214,317	3,380	217,697	5	2	0	-0	450	164	484	
07/06	304,576	4,048	308,624	217,697	3,440	221,137	7	0	2	-0	459	164	482	
07/07	308,624	2,898	311,522	221,137	4,410	225,547	6	3	1	-0	466	167	484	
07/10	311,522	2,323	313,845	225,547	2,682	228,229	5	1	1	-0	472	168	484	
07/11	313,845	1,495	315,340	228,229	3,040	231,269	4	2	4	-0	480	170	482	
07/12	315,340	2,185	317,525	231,269	5,600	236,869	6	5	0	-0	486	175	481	
07/13	317,525	1,886	319,411	236,869	1,750	238,119	2	0	5	-0	493	175	483	
07/17	319,411	2,116	321,527	238,119	1,814	239,933	3	1	1	-0	497	176	483	
07/18	321,527	1,380	322,907	239,933	1055	240,988	2	0	0	-0	499	176	483	
07/19	322,907	5,198	328,105	240,988	1,750	242,738	4	1	0	-0	503	177	483	
07/20	328,105	4,750	332,855	242,738	1,320	244,058	0	3	4	-0	507	180	481	
07/25	332,855	0	332,855	244,058	1,660	245,718	3	1	1	-0	511	181	481	
07/26	332,855	0	332,855	245,718	680	246,398	1	0	0	-0	512	181	481	
07/27	332,855	0	332,855	246,398	1,240	247,638	2	3	0	-0	514	184	482	
07/31	332,855	0	332,855	247,638	1,984	249,622	2	0	3	-0	519	184	481	
08/01	332,855	0	332,855	249,622	1,445	251,067	3	0	0	-0	522	184	481	
08/02	332,855	0	332,855	251,067	2,590	253,507	5	0	0	-0	527	184	481	
08/03	332,855	0	332,855	253,507	1,204	254,711	2	1	0	-0	529	185	482	

Radon Barrier Material

Date	≈ Placed Qty.			≈ Compacted Qty.			Tests Taken				Total Tests		Total Est. Area/Passing Test (yd ³)	Remarks
	Prev.	Placed	Accum.	Prev.	Comp.	Accum.	Pass	Fail	P-R test	F-R test	Pass	Fail		
08/07/89	332,855	0	332,855	254,771	0	254,771	0	0	1	0	530	185	481	
08/08	332,855	0	332,855	254,771	620	255,391	4	0	0	0	534	185	478	
08/09	332,855	0	332,855	255,391	710	256,101	4	0	0	0	538	185	476	
08/10	332,855	0	332,855	256,101	1070	257,171	6	0	0	0	542	185	473	
08/14	332,855	0	332,855	257,171	200	257,371	1	1	1	0	546	186	471	
08/15	332,855	0	332,855	257,371	400	257,771	3	0	0	0	549	186	470	
08/16	332,855	0	332,855	257,771	420	258,191	3	0	0	0	552	186	468	
08/28	332,855	0	332,855	258,191	0	258,191	2	0	0	0	554	186	466	
02/22/90	332,855	0	332,855	258,191	4	258,195	1	0	0	0	555	186	465	
<p>Note: → 332,855 yd³ per load count basis. ↳ X 24% assumed shrinkage value 1 test/ $L_p = 252,970 \text{ yd}^3 / 555 \Rightarrow \approx 456 \text{ F. yd}^3$</p> <p>Per Aug. 89' pay estimate; ↳ ≈ compacted radon barrier material $L_p = 248,349 \text{ yd}^3 / 555 \Rightarrow \approx 1 \text{ test} / 447 \text{ yd}^3$</p>														