

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 29, 1999

Mr. Lawrence J. Corte, Manager Western Nuclear, Inc. Union Plaza Suite 300 200 Union Boulevard Lakewood, CO 80228

SUBJECT: REVIEW OF RADON FLUX SAMPLING DATA - AMENDMENT 91

Dear Mr. Corte:

This letter is in response to your submittals dated November 13, 1998, and January 18, 1999, concerning the U.S. Nuclear Regulatory Commission (NRC) review of Western Nuclear, Inc.'s (WNI's) radon flux sampling data at its Split Rock, Wyoming, site.

Based on its review of these submittals, the NRC staff concurs with the analysis and results of WNI's radon flux sampling reports and concludes that WNI has demonstrated compliance with 10 CFR Part 40, Appendix A, Criterion 6(2) requirements. The NRC staff review is documented in the enclosed Technical Evaluation Report. Also enclosed is the amended source materials license SUA-56, reflecting the revision of license condition 75A(3) to show WNI's compliance with applicable radon emissions limits.

An environmental review of this action was not performed since it is categorically excluded under 10 CFR 51.22(c)(11). Also, an environmental report was not required by the license pursuant to 10 CFR 51.60(b)(2).

If you have any questions concerning this subject, please contact Mr. Robert Carlson of my staff at (301) 415-8165.

Sincerely,

John J. Surmeier, Chief
Uranium Recovery and
Low-Level Waste Branch
Division of Waste Management
Office of Nuclear Material Safety

and Safeguards

Docket No. 40-1162 License No. SUA-56

Enclosures: As stated

cc: R. Chancellor, WDEQ

#### TECHNICAL EVALUATION REPORT

DATE:

September 27, 1999

DOCKET NO .:

40-1162

LICENSE NO .:

SUA- 56

LICENSEE:

Western Nuclear, Inc.

FACILITY:

Split Rock, WY

PROJECT MANAGER:

Robert Carlson

TECHNICAL REVIEWER:

John H. Lusher

#### SUMMARY AND CONCLUSIONS:

By letter dated November 13, 1998, Western Nuclear, Inc. (WNI) transmitted to the U.S. Nuclear Regulatory Commission (NRC) its radon emanation testing reports on the radon barriers of its Spilt Rock, WY, site tailings piles to demonstrate compliance with 10 CFR Part 40, Appendix A, Criterion 6(2). After performing an initial review of the licensee's submittal, the NRC staff verbally requested additional information in December 1998 concerning quality assurance data from the testing laboratory. WNI provided the additionally requested data to NRC on January 18, 1999. Based on its review of the aforementioned licensee submittals, the NRC staff concludes that WNI has demonstrated compliance with applicable 10 CFR Part 40 requirements.

## **BACKGROUND:**

In 1997 WNI completed placement of the radon barrier for its Split Rock site and submitted the results of this reclamation action in its Radiological Verification Completion Report, dated December 19, 1997. Beginning in 1995, WNI conducted radon flux performance sampling at the tailings piles within each of the areas for which radon barrier had been placed during the preceding calender year. Final report data for testing conducted during 1998 were received by WNI on October 3, 1998. The radon flux performance sampling data and results were sent to the NRC via WNI's November 13 submittal. The NRC staff conducted an initial review of WNI's reports in December 1998 and requested the quality assurance data for radon flux sampling from the testing laboratory. WNI provided this additional information in its January 18 submittal

#### **TECHNICAL EVALUATION:**

The NRC staff reviewed WNI's submittal material for its radon barrier analysis and the laboratory quality assurance data. Based on this review, the NRC staff concluded the quality assurance data was within acceptable limits and that the appropriate procedures were used. The average measured radon flux (from 320 locations) was 0.88 pCi/m²s, compared to the regulatory limit of 20 pCi/m²s.

Therefore, the data demonstrated that WNI met the requirements of 10 CFR Part 40, Appendix A, Criterion 6(2) for the total tailings areas reclaimed and tested at the Split Rock site.

## PROPOSED LICENSE CHANGE:

License condition 75A(3) should be revised to read as follows:

Placement of final radon barrier designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m²s above background as described in WNI's submittal of June 14, 1994, and subsequently verified in submittals dated November 13, 1998, and January 18, 1999 - complete.

[Applicable Amendments: 73, 77, 86, and 91]

## **ENVIRONMENTAL IMPACT EVALUATION:**

An environmental assessment (EA) is not required for this licensing action in accordance with the categorical exclusion contained in 10 CFR § 51.22 (c)(11). This paragraph states the categorical exclusion applies to issuing license amendments for uranium mill operators licensed under 10 CFR § 40 provided that: (1) there is no significant change in the types or significant increase in the amounts of any effluent that may be released off site; (2) there is no significant increase in individual or cumulative occupational radiation exposure; (3) there is no significant construction impact; and (4) there is no significant increase in the potential for, or consequences from, radiological accidents. The licensing action discussed herein meets all of the above listed criteria for an EA categorical exclusion.

Additionally, this license amendment application does not meet any of the subsequently listed criteria of 10 CFR 51.60(b)(2), regarding the requirement for licensee's to submit environmental reports with amendment requests. This paragraph states an environmental report shall be prepared by uranium mill operators licensed under 10 CFR Part 40 if one of the following criteria applies: (1) a significant expansion of the site; (2) a significant change in the types of effluents; (3) a significant increase in the amounts of effluents; (4) a significant increase in individual or cumulative occupational radiation exposures; (5) a significant increase in the potential for or consequences from radiological accidents; or (6) a significant increase in spent fuel storage capacity, in a license or other form of permission to conduct an activity listed in paragraph (b)(1) of this section. The licensing action discussed herein does not meet any of the aforementioned criteria. Consequently, an environmental report is not required from the licensee for this action.

#### REFERENCES:

WNI letter to NRC submitting radon flux sampling data, dated November 13, 1998.

WNI letter to NRC submitting additional information regarding radon flux testing, dated January 18, 1999.

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## U.S. NUCLEAR REGULATORY COMMISSION

## MATERIALS LICENSE

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NRC FC (7-94)	DRM 374	U.S. NUCLEAR F	REGULATORY COMMISSION	PAGE	OF	0	PAGES
		MATER	RIALS LICENSE				
Federal by the li material persons specifie	Regulations, Chapter I, Parts 30, 31, 32 (censee, a license is hereby issued author designated below; to use such materia authorized to receive it in accordance with a section 183 of the Atomic Energy Regulatory Commission now or herea	2. 33, 34, 35, 36, 39, orizing the licensee to all for the purpose(so with the regulations of y Act of 1954, as an	, 40, and 70, and in reliance on to receive, acquire, possess, an a) and at the place(s) designate of the applicable Part(s). This is mended, and is subject to all	statements and rep d transfer byproduced d below; to delive icense shall be dee applicable rules, re	oresentations et, source, and er or transfer med to conta	heretof d specia such m in the c	fore mad al nuclea naterial t condition
	Licensee						
1.			3. License Number	SUA-56, Am	endment	No. 9	1
1.	Western Nuclear, Inc.		3. License Number				
2.	200 Union Boulevard, Suite Lakewood, Colorado 80228 [Applicable Amendments: 3	3	4. Expiration Date		Until Terminated (Applicable Amendments: 31, 32, 38, 41]		
	[Applicable Amendments: 5	4, 52]	5. Docket or Reference No.	40-1162			
	oduct, Source, and/or al Nuclear Material	7. Chemical Form	and/or Physical	8. Maximun	n Amount tha		
Speci	Natural Uranium		Any		lifed cense	Jue III	ine
9.	The licensee is hereby authorized Places of Use: miles north of Jeffrey City, V	ensee's past mi	illing operations authori	zed under SU	A-56. [Ap	plicat	ole
	[Applicable Amendments 46	, 50, 60, 82]	*				
11.	DELETED by Amendment N	lo. 49.					
12.	DELETED by Amendment N	lo. 49.					
13.	DELETED by Amendment N	lo. 49.					
14.	DELETED by Amendment N	lo. 49.					
15.	DELETED by Amendment N	o. 49.					
16.	DELETED by Amendment N	0. 54.		*			
17.	DELETED by Amendment N	o. 33.					
18.	DELETED by Amendment N	o. 49.					
19.	DELETED by Amendment N	o. 56.					
20.	DELETED by Amendment No	o. 49.					
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- 6. Byproduct, Source, and/or Special Nuclear Material
  - Natural Uranium
- 7. Chemical and/or Physical Form
  - Any

- 8. Maximum Amount that Licensee May Possess at Any One Time Unden This dicense
- The licensee is hereby authorized to possess byproduct material in the form of uranium waste tailings generated by the licensee's past milling operations authorized under SUA-56. [Applicable Amendments: 32, 46, 58]
- Authorized Places of Use: The licensee's uranium milling facilities located approximately two miles north of Jeffrey City, Wyoming.

- 11. DELETED by Amendment No. 49.
- 12. DELETED by Amendment No. 49.
- 13. DELETED by Amendment No. 49.
- 14. DELETED by Amendment No. 49.
- 15. DELETED by Amendment No. 49.
- 16. DELETED by Amendment No. 54.
- 17. DELETED by Amendment No. 33.
- 18. DELETED by Amendment No. 49.
- 19. DELETED by Amendment No. 56.
- DELETED by Amendment No. 49. 20.

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04)				L	icense Numbe	SUA-56, A	mendment No. 9
	¥	MATERIALS I SUPPLEMENTAL		Ε	Docket or Refe		40-1162
21.	DELET	ED by Amendment	t No. 56.				
22.	DELET	TED by Amendment	t No. 54.				
23.	DELET	ED by Amendment	t No. 33.				
24.	guidand license Across same co obtaine with rec	ensee shall implem ce titled "Current Ene shall sample three from Mill], and S-7 constituents [excluded from this monitor quirements of 10 Cl	nvironmental Monit e surface water loo [Sweetwater Aboving static water leving program shall I FR 40.65.	toring Progra cations, S-5 [ive Mill], at the rel] as require the reported s	m," dated No Sweetwater same samp ed under LC emiannually	ovember 14, 19 Below Mill], S- bling frequency No. No. 74A.	988. The 6 [Sweetwater and for the The data
	[Applio	cable Amendments	: 26, 28, 30, 44, 49	9, 56A, 84, 89	9]		
25.	March recom chang letters	icensee shall cond n 25, 1981. In a nmendations of eac ges to the "Environr dated March 27, 1 dment.	iddition, the licens h annual audit of the mental Monitoring	see shall be he environme Manual" sub	required to ental moniton mitted on M	o document the ring program. arch 23, 1981	ne results and Any requested , as revised by
	[Applio	cable Amendments	: 49, 63]				
26.	DELE	TED by Amendmer	nt No. 49.				
27.	Sectio Split R	censee shall reclaim ons 1 through 5 and lock Mill, Addendum mation Plan," with the	Section 7 of their A (February 7, 199	February 7, 1 94) to Revisio	1994, report	titled, "Wester	n Nuclear, Inc.
	A.		her than the on-site omitted to the NRC source.				
	B.	Figure 4, Drawing Shale and 12 inches	es of Soil Borrow. wever, once the sto	ddendum A t This design is orage ponds a	o Revision 5 considered are dismantle	) consists of 6 in acceptable for ed, the License	estimating the shall confirm
	C.	A completion repor performed according completion of cons	ng to the approved	reclamation p	lan shall be p	provided within	6 months after
		assurance and cor					

- 21. DELETED by Amendment No. 56.
- 22. DELETED by Amendment No. 54.
- 23. DELETED by Amendment No. 33.
- The licensee shall implement the environmental monitoring program outlined in Table 2 of its 24. guidance titled "Current Environmental Monitoring Program." dated November 14, 1988. The licensee shall sample three surface water locations, S-5 [Sweetwater Below Mill], S-6 [Sweetwater Across from Mill], and S-7 [Sweetwater Above Mill], at the same sampling frequency and for the same constituents [excluding static water level] as required under LC No. No. 74A. The data obtained from this monitoring program shall be reported semiannually to the NRC in accordance with requirements of 10 CFR 40.65.

- 26. DELETED by Amendment No. 49.
- 27. The licensee shall reclaim the tailings disposal areas in accordance with the Tables and Figures, and Sections 1 through 5 and Section 7 of their February 7, 1994, report titled, "Western Nuclear, Inc. Split Rock Mill, Addendum A (February 7, 1994) to Revision 5 to the June 30, 1987, Uranium Tailings Reclamation Plan," with the following exceptions:
  - A. If a rock source other than the on-site source is used, durability testing must be performed and the results submitted to the NRC for review and approval prior to placement of materials from the alternate source.
  - B. The preliminary radon attenuation barrier design for the Winter Storage Ponds (Area 2C, Figure 4, Drawing No. 91-225-E53 (Addendum A to Revision 5) consists of 6 inches of Cody Shale and 12 inches of Soil Borrow. This design is considered acceptable for estimating the surety amount. However, once the storage ponds are dismantled, the Licensee shall confirm the design and obtain NRC approval prior to placing the radon cover on the ponds.
  - C. A completion report including as-built drawings, verifying that reclamation of the site has been performed according to the approved reclamation plan shall be provided within 6 months after completion of construction. The report shall also include summaries of results of the quality assurance and control testing to demonstrate that approved specifications were met.
  - D. One-point Proctor tests shall not be required during placement of the Cody shale.

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		MATERIALS LI	CENSE	Docket or Refe		40-1162
	*)	SUPPLEMENTARY				40-1102
	E.	This erosion protect	ction layer, to be place	ction layer, consisting of ed over the final surfact of rock with a minimum	e reclamation :	soil cover, will
	F.	For rock durability placement and one	tests, the frequency, se test series for every 2	specified in Table 5, sh 20,000 cubic yards of n	all be one test naterial from the	series prior to e rock source.
,	G.	placement and one a minimum of 3 tes	e test for every 10,000 ts for each material siz	y, specified in Table 5 cubic yards of each size. These gradation te blacement of material.	ze of material p	roduced, with
	Н.	constructed in accordescribed in the lic Surface Reclamati	ordance with material cense amendment red on Design - License m, dated March 31, 19	rtions of Area 1A ar types, thicknesses, a quest, License Conditi Condition #33: Adder 97; and the supplemen	nd placement o on #27: Revisi ndum to Radiol	criteria ons to ogical
	I.	accordance with th	e Western Nuclear, li Cover Thickness 0.8	the 0.8 acre Area 2/ nc. Wastern Nuclear S Acre Area in Area 2A,	plit Rock Site	
	J.	"Disposal Plan for	samples shall be disp Left-Over Samples C ," dated July 26, 1999	osed of in accordance ollected During Radiol	with Western N ogical Clean-U	luclear, Inc.'s p Program at
	[Applio	cable Amendments:	22, 56, 68, 71, 74, 7	5, 80, 81, and 90]		
28.	DELE	TED by Amendment	No. 87.			
29.	10 CF by a th of any surveil the lice arrang	R 40, Appendix A, C nird party, for decome tailings or waste dis llance fee. Within 3 r ensee shall submit, f pement if estimated g financial surety. T	criteria 9 and 10, adeq missioning and decor sposal areas, ground months of NRC approv or NRC review and a costs in the newly a	ed financial surety and uate to cover the estination of the mill awater restoration as wall of a revised reclama oproval, a proposed repproved plan exceed all then be in effect with	nated costs, if a and mill site, fo varranted and f ation/decommis vision to the fir the amount co	accomplished r reclamation the long-term ssioning plan, lancial surety overed in the
	be sub Decem 30 day existing license	omitted to the NRC and the NRC and the second secon	at least 3 months price. If the NRC has not appeared to date of the existing on the for 1 year. Along working documentations	by 10 CFR 40, Append or to the anniversary of oproved a proposed re- g surety arrangement, to with each proposed re- showing a breakdown of maintenance of a minim	late which is d vision to the sur the licensee shavision or annua of the costs and	esignated as ety coverage all extend the I update, the I the basis for

- The soil component of the erosion protection layer, consisting of soil/rock matrix, is deleted. This erosion protection layer, to be placed over the final surface reclamation soil cover, will consist of a minimum 4-inch thickness of rock with a minimum D<sub>50</sub> of 2-inches.
- For rock durability tests, the frequency, specified in Table 5, shall be one test series prior to placement and one test series for every 20,000 cubic yards of material from the rock source.
- For rock gradation tests, the frequency, specified in Table 5, shall be one test prior to placement and one test for every 10,000 cubic yards of each size of material produced, with a minimum of 3 tests for each material size. These gradation tests shall be performed as the
- The radon barrier for the northern portions of Area 1A and Area 1B shall be constructed in accordance with material types, thicknesses, and placement criteria described in the license amendment request, License Condition #27: Revisions to Surface Reclamation Design - License Condition #33: Addendum to Radiological Verification Program, dated March 31, 1997; and the supplemental information, dated
- The thickness of the radon barrier in the 0.8 acre Area 2A shall be in accordance with the Western Nuclear, Inc. Wastern Nuclear Split Rock Site Redesign of Final Cover Thickness 0.8 Acre Area in Area 2A, transmmitted
- Contaminated soil samples shall be disposed of in accordance with Western Nuclear, Inc.'s "Disposal Plan for Left-Over Samples Collected During Radiological Clean-Up Program at

- The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criteria 9 and 10, adequate to cover the estimated costs, if accomplished by a third party, for decommissioning and decontamination of the mill and mill site, for reclamation of any tailings or waste disposal areas, ground-water restoration as warranted and the long-term surveillance fee. Within 3 months of NRC approval of a revised reclamation/decommissioning plan, the licensee shall submit, for NRC review and approval, a proposed revision to the financial surety arrangement if estimated costs in the newly approved plan exceed the amount covered in the existing financial surety. The revised surety shall then be in effect within 3 months of written NRC

SUA-56, Amendment No. 91

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MATERIALS LICENSE SUPPLEMENTARY SHEET

fee, changes in engineering plans, activities performed and any other conditions affecting estimated costs for site closure. The licensee shall also provide the NRC with all surety related correspondence submitted to the State, a copy of the State's surety review, and the final approved surety arrangement. The licensee shall also ensure that the surety, where authorized to be held by the State, expressly identifies the NRC portion of the surety. The basis for the cost estimate is the NRC approved reclamation/decommissioning plan or NRC approved revisions to the plan. The previously provided guidance entitled "Recommended Outline for Site Specific Reclamation and Stabilization Cost Estimates" outlines the minimum considerations used by the NRC in the review of site closure cost estimates. Reclamation/ decommissioning plans and annual updates should follow this outline.

Western Nuclear's currently approved surety, issued by American Home Assurance Company on October 26, 1998, in favor of the U. S. Nuclear Regulatory Commission, shall be continuously maintained in an amount no less than \$11,439,100 for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9 and 10, until a replacement is authorized by the NRC.

[Applicable Amendments: 24, 45, 53, 64, 66, 70, 72, 76, 85P]

- 30. DELETED by Amendment No. 69.
- 31. DELETED by Amendment No. 46.

- 32. A. DELETED by Amendment No. 56.
  - B. DELETED by Amendment No. 50.
- DELETED By Amendment No. 88
- 34. In order to ensure that no disturbance of cultural resources occurs in the future, the licensee shall have an archeological and historical artifact survey of areas of its property, not previously surveyed, performed prior to their disturbance, including borrow areas to be used for reclamation cover. These surveys must be submitted to the NRC and no such disturbance shall occur until the licensee has received authorization from the NRC to proceed.

The licensee is authorized to excavate material from the proposed reclamation borrow areas as designated in the licensee's approved reclamation plan, provided that protection of the cultural resources is managed in accordance with statements and representation contained in the licensee's letter dated March 30, 1992.

[Applicable Amendment: 71]

- 35. Before engaging in any project-related activity not evaluated by the NRC, the licensee shall prepare and record an environmental evaluation of such activity. When the evaluation indicates such activity may result in a significant adverse environmental impact that was not evaluated, or an impact greater than that evaluated in the environmental statement, the licensee shall provide a written evaluation of such activity and obtain prior approval of the NRC for the activity.
- DELETED by Amendment No. 49.

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(7-94)		License Number	SUA-56,	Amendment No	o. 91
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	SUPPLEMENTARY SHEET	Document of the same		40-1102	
37.	The licensee is hereby exempted from the requirement	s of Section 20	203(e)(2) o	f 10 CFR Part 20	٥.
37.	provided that all entrances to the restricted area are Section 20.203(e)(2) and with words, "Any area within t	conspicuous	y posted in	accordance wit	tn
	[Applicable Amendment: 49]				
38.	Mill tailings other than samples for research shall not prior approval of the NRC obtained through application shall maintain a permanent record of all transfers mad	for amendmen	it of this licer	ise. The license	ic e
39.	DELETED by Amendment No. 50.				
40.	DELETED by Amendment No. 49.				
41.	Release of equipment or packages from the restrict previously provided guidance entitled, "Guidelines for Derior to Release for Unrestricted Use or Termination of I dated September, 1984.	Decontamination	on of Facilitie	s and Equipmer	nt
42.	The Radiation Safety Officer (RSO) shall perform an program for content and implementation. A copy of the site and shall be available for NRC review.				
	[Applicable Amendments: 49, 87]				
43.	The results of sampling, analysis surveys and monitori inspections, and the additional conditions to this lice investigations, and corrective actions, shall be documentations, all such documentation shall be maintained.	ense, as well a ented. Unless	as any subs otherwise :	sequent reviews specified in NR(	S,
	[Applicable Amendment: 49, 87]				
44.	Written procedures shall be established for site reclar personnel and environmental monitoring, and survey institute be reviewed and approved in writing by the Radiation Stand whenever a change in procedure is proposed principles are being applied. In addition, the RSO shall site procedures at least annually. An up-to-date copy of site facility.	rument calibrate Safety Officer ( to ensure that perform a doct	tions. These RSO) before t proper rad umented rev	procedures sha e implementation liation protection iew of all existing	ll n n g
	[Applicable Amendments: 49, 56, 87]				
45.	DELETED by Amendment No. 49.				
46.	DELETED by Amendment No. 87.				
47.	DELETED by Amendment No. 49.				
48.	The Radiation Safety Office (RSO), who is responsible decommissioning, shall possess the minimum qualing Regulatory Guide 8.31, "Information Relevant to Ensurat Uranium Mills Will Be As Low As Reasonably Achievant Company and Company (RSO), who is responsible decommissioning in the RSO), who is responsible decommissioning in the RSO).	fications as sping That Occu	pecified in S pational Rad	Section 2.4.1 of diation Exposure	f

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- 45. DELETED by Amendment No. 49.
- 46. DELETED by Amendment No. 87.
- 47. DELETED by Amendment No. 49.
- 48. The Radiation Safety Office (RSO), who is responsible for the radiation safety aspects of the decommissioning, shall possess the minimum qualifications as specified in Section 2.4.1 of Regulatory Guide 8.31, "Information Relevant to Ensuring That Occupational Radiation Exposure at Uranium Mills Will Be As Low As Reasonably Achievable," until license termination.

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NRC FORM (7-94)	374A U.S. N.	-EAR REGULATORY COMMISSION	License Number	SUA-56, Amendment No. 9
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	[Applicable Amendments:	49, 50, 56, 87]		
49.	DELETED by Amendmen			
50.	DELETED by Amendmen			
51.	DELETED by Amendmen			
	DELETED by Amendmen			
52.			after repair ar	nd as recommended by the
53.	manufacturer or at interva	als not to exceed six months,	whichever is s	ooner.
54.	DELETED by Amendmen	t No. 49.		
55.	DELETED by Amendmen	t No. 49.		
56.	DELETED by Amendmen	t No. 49.		
57.	DELETED by Amendmen	t No. 33.		
58.	DELETED by Amendmen	t No. 37.		
59.	DELETED by Amendmen	t No. 49.		
60.	DELETED by Amendmen	t No. 49.		
61.	DELETED by Amendmen	t No. 49.		
62.	DELETED by Amendmen	t No. 49.		
63.	DELETED by Amendmen	t No. 56.		
64.	The licensee shall control	ol grazing to the N and NNE	he north side o	impoundment by maintaining f the restricted area fence, as G. Fletcher to J. Linehan.
65.	DELETED by Amendmen	t No. 49.		
66.	DELETED by Amendmen	t No. 33.		
67.	DELETED by Amendmen	t No. 33.		
68.	DELETED by Amendmen	t No. 46.		,
69.	DELETED by Amendmen	t No. 46.		
70.	DELETED by Amendmen	t No. 49.		
71.	DELETED by Amendmen			
72.	DELETED by Amendmen			
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		MATERIA	ALS LICENSE		Docket or Reference				
			ENTARY SHEET		40-1162				
73.	DELE	TED by Amer	ndment No. 54.						
74.	The li	censee shall in	mplement a complia	nce monitoring	program containing the following:				
	Α.	Sample Sou	thwest Valley Wells	1, B, 21, 24, 25, frequency for ch	16, 15, and Northwest Valley Wells 4, 5, 17, aloride, nitrate, sulfate, pH, TDS, water level, am-226 and 228, selenium, thorium-230, and				
	B.	Comply with No. 4 and 2	the following grour I, with background I	nd-water protect being recognize	tion standards at point of compliance Well d in Well No. 15:				
		= 0.05  mg/l,	0.05 mg/l, cadmium radium-226 and 228 = 0.16 mg/l.	= 0.01 mg/l, chr 3 = 5 pCi/l, selen	omium = 0.05 mg/l, lead = 0.05 mg/l, nickel nium = 0.013 mg/l, thorium-230 = 0.95 pCi/l,				
	C	15 million gal program sha submittals a 1993, April program sha 228, seleniur 74B above.	llons of contaminate all be constructed a s modified by the li 18, 1997, May 20, Il be to return the co m, thorium-230, and	d water based up a described in the censee's April 3 1998, and July 2 ncentrations of the centration o	shall recover and evaporate between 6 and pon minimizing recharge to the tailings. This the August 31, and September 28, 1989, 3, 1990, January 13, 1992, September 23, 2, 1999, submittals. The objective of the beryllium, cadmium, nickel, radium-226 and concentration limits specified in Subsection am Plan, which includes a complete site october 31, 1999.				
		[Applicable A	mendments: 25, 27	7, 36, 39, 40, 44	, 48, 51, 56, 58, 61, 62, 67, 69A, 79, 89]				
	D.	The licensee shall submit by December 15 of each year, a review of the corrective action program and its effect on the aquifer.							
		[Applicable A	mendments: 25, 2	7, 36, 39, 40, 44	4, 48, 51, 56, 58, 61, 62, 67, 69A, 79]				
	75. The licensee shall complete site reclamation in accordance with the approve plan and groundwater corrective action plan, as authorized by License Condition 74, respectively, in accordance with the following schedules.								
		Memo (56 Fi radon	orandum of Under R 55432, October 25	rstanding with 5, 1991), the lice litiously as practi	get completion dates established in the the Environmental Protection Agency ensee shall complete reclamation to control icable, considering technological feasibility, e:				
		(1)	Windblown tailing	s retrieval and p	placement on the pile - complete.				
		(2)	Placement of the i and erosion - com		decrease the potential for tailings dispersal				
		(3)	emissions to an av	erage flux of no	designed and constructed to limit radon more than 20 pCi/m²/s above background June 14, 1994, and subsequently verified				

- DELETED by Amendment No. 54. 73.
- The licensee shall implement a compliance monitoring program containing the following: 74
  - Sample Southwest Valley Wells 1, B, 21, 24, 25, 16, 15, and Northwest Valley Wells 4, 5, 17, A. 19, 23, and 27, on a semiannual frequency for chloride, nitrate, sulfate, pH, TDS, water level, beryllium, cadmium, chromium, lead, nickel, radium-226 and 228, selenium, thorium-230, and uranium.
  - Comply with the following ground-water protection standards at point of compliance Well B. No. 4 and 21, with background being recognized in Well No. 15:

- 75. The licensee shall complete site reclamation in accordance with the approved reclamation plan and groundwater corrective action plan, as authorized by License Condition Nos. 27 and 74, respectively, in accordance with the following schedules.
  - A. To ensure timely compliance with target completion dates established in the Memorandum of Understanding with the Environmental Protection Agency (56 FR 55432, October 25, 1991), the licensee shall complete reclamation to control radon emissions as expeditiously as practicable, considering technological feasibility. in accordance with the following schedule:
    - (1)Windblown tailings retrieval and placement on the pile - complete.

- Placement of the interim cover to decrease the potential for tailings dispersal (2)and erosion - complete.
- (3)Placement of final radon barrier designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m<sup>2</sup>/s above background as described in WNI's submittal of June 14, 1994, and subsequently verified

THE CHECK OF THE CHECK OF THE CHECK OF THE NRC FORM 374A NUCLEAR REGULATORY COMMISSION PAGE PAGES (7-94)License Number SUA-56, Amendment No. 91 MATERIALS LICENSE Docket or Reference Number 40-1162 SUPPLEMENTARY SHEET

in submittals dated November 13, 1998, and January 18, 1999 - complete.

- Reclamation, to ensure required longevity of the covered tailings and groundwater B. protection, shall be completed as expeditiously as is reasonably achievable, in accordance with the following target dates for completion and as described in WNI's submittal of June 14, 1994:
  - Placement of erosion protection as part of reclamation to comply with (1)Criterion 6 of Appendix A of 10 CFR Part 40.
    - For areas 3A and 3B June 30, 1995 (complete). (a)
    - (b) For area 2B - June 30, 1996.
    - For area 1C June 30, 1997. (c)
    - For areas 1A, 1B, 2A, and 2C June 30, 1999. (d)
  - Projected submittal of revised groundwater corrective action plan October (2)31, 1999...
- C. Any license amendment request to revise the completion dates specified in Section A must demonstrate that compliance was not technologically feasible (including inclement weather, litigation which compels delay to reclamation, or other factors beyond the control of the licensee).
- Any license amendment request to change the target dates in Section B above, must D. address added risk to the public health and safety and the environment, with due consideration to the economic costs involved and other factors justifying the request such as delays caused by inclement weather, regulatory delays, litigation, and other factors beyond the control of the licensee.

[Applicable Amendments: 73, 77, 86, 91]

76. Notification to NRC under 10 CFR 20.2202, 10 CFR 40.60, and specific license conditions should be made as follows:

Required written notice to NRC under this license should be given to: Chief, Uranium Recovery and Low-Level Waste Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

[Applicable Amendment: 73]

Date 9/28/99

FOR THE MUCLEAR REGULATORY COMMISSION

hn Surmeier, Chief

Uranium Recovery and Low-Level

Waste Branch

Division of Waste Management Office of Nuclear Material Safety

and Safeguards

Mr. Lawrence J. Corte, Manager

Western Nuclear, Inc. Union Plaza Suite 300 200 Union Boulevard

Lakewood, CO 80228

SUBJECT:

REVIEW OF DISPOSAL PLAN FOR CONTAMINATED SOIL SAMPLES -

September 22, 1999

**AMENDMENT 90** 

Dear Mr. Corte:

This letter is in response to your submittal dated July 26, 1999, regarding U.S. Nuclear Regulatory Commission (NRC) review of Western Nuclear, Inc.'s (WNI's) disposal plan for leftover contaminated soil samples collected during the 1996-1997 radiological clean-up program at its Split Rock, WY, site.

Based on its review of WNI's submittal, the NRC staff concurs with the proposed disposal plan. The NRC staff review is documented in the enclosed Technical Evaluation Report. Also enclosed is the amended source materials license SUA-56, reflecting the addition of license condition 27J regarding WNI's disposal plan for contaminated soil samples. This license amendment was discussed with Mr. Lou Miller of WNI's staff on September 16, 1999.

An environmental review of this action was not performed since it is categorically excluded under 10 CFR 51.22(c)(11). Also, an environmental report was not required by the license pursuant to 10 CFR 51.60(b)(2).

If you have any questions concerning this subject, please contact Mr. Robert Carlson of my staff at (301) 415-8165.

Sincerely,

[Signed by] John J. Surmeier, Chief Uranium Recovery and Low-Level Waste Branch Division of Waste Management Office of Nuclear Material Safety and Safeguards

280048

Docket No. 40-1162 License No. SUA-56 Enclosures: As stated cc: R. Chancellor, WDEQ

CASE CLOSED: L51840

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