



WESTERN NUCLEAR, INC.

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March 9, 2009

Richard Chang
Project Manager
Special Projects Branch
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
11545 Rockville Pike
Rockville, Maryland 20852

Re: Western Nuclear Inc., Split Rock Uranium Mill Tailings Facility, Source Materials License SUA-56, Proposed Amendments to License Condition 74.

Dear Mr. Chang:

A review of license condition 74 indicates that there is a need to update compliance standards for some of the constituents that are being monitored as part of the required groundwater monitoring program at the Western Nuclear Inc., Split Rock Uranium Mill Tailings Facility. Specifically, there are some constituents that are required to be measure that do not have compliance standards. This letter requests standards to correct that oversight.

In 2006, alternative concentration limits for various constituents were granted and these standards are included in the current license. There are no proposed changes for the constituents that have alternative concentration limits. In addition, a request was recently submitted to change the compliance standard for selenium and to delete the standard for chromium. This submittal does not alter those requests.

There are a total of 17 hazardous constituents that are analyzed as part of the groundwater monitoring program. Six of these constituents (ammonia, manganese, molybdenum, nitrate, radium-226+228 and uranium) have alternative concentration limits. As stated above, a standard for selenium was proposed recently. The other 10 constituents are discussed below.

Aluminum

The current license does not have a compliance limit for aluminum. The WNI October 29, 1999 Site Closure Plan (WNI, 1999) proposed a standard of 37 mg/L which is a risk based standard determined using EPA procedures. It is proposed that the compliance limit for aluminum be set at 37 mg/L.

Antimony

The current license does not have a compliance limit for antimony. The EPA maximum concentration limit (MCL) for antimony is 0.006 mg/L. It is proposed that the compliance limit for antimony be set at 0.006 mg/L.

Arsenic

The current license does not have a compliance limit for arsenic. Table 5 C of 10 CFR 40, Appendix A lists a groundwater protection standard for arsenic of 0.05 mg/L. It is proposed that the compliance limit for arsenic be set at 0.05 mg/L.

Beryllium

The current license has a standard of 0.05 mg/L for beryllium. It is proposed that this limit remain the same.

Cadmium

The current license has a standard of 0.01 mg/L for cadmium. This is consistent with Table 5 C of 10 CFR 40, Appendix A. It is proposed that this limit remain the same.

Fluoride

The current license does not have a compliance limit for fluoride. The EPA maximum concentration limit (MCL) for fluoride is 4 mg/L. It is proposed that the compliance limit for fluoride be set at 4 mg/L.

Lead

The current license has a standard of 0.05 mg/L for lead. This is consistent with Table 5 C of 10 CFR 40, Appendix A. It is proposed that this limit remain the same.

Nickel

The current license has a standard of 0.05 mg/L for nickel. It is proposed that this limit remain the same.

Thallium

The current license does not have a compliance limit for thallium. The EPA maximum concentration limit (MCL) for thallium is 0.002 mg/L. It is proposed that the compliance limit for thallium be set at 0.002 mg/L.

Thorium-230

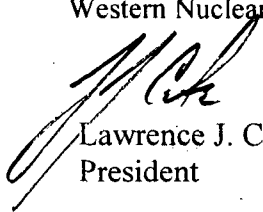
The current license has a standard of 0.05 pCi/L for thorium-230. It is proposed that this limit remain the same.

The most recent data for these 10 constituents from the compliance monitoring wells are presented in Table 1. Figure 1 shows the location of the wells. These data were not plotted as almost all the data were less than detection limits. As can be seen, all the data from the point of compliance (POC) wells and wells down-gradient from the POC wells indicate that all constituent concentration values are less than the proposed limits. Well 1 and Well 4R are up-gradient from POC wells.

Please contact Lou Miller if you have any technical questions regarding this report.

Sincerely,

Western Nuclear Inc.


Lawrence J. Corte
President

Richard Chang, NRC
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March 5, 2009

cc: Anne Thomas, WNI
Louis Miller, Miller Geotechnical Consultants
Scott Surovchak, DOE

Reference:

Western Nuclear Inc., 1999. Site Ground Water Characterization and Evaluation [ADAMS Accession Nos. ML003672396, ML003672400, ML003672396]

Table 1 Groundwater Monitoring Results

Well Name	Collection Date	Al (mg/L)	As (mg/L)	Be (mg/L)	Cd (mg/L)	F (mg/L)	Ni (mg/L)	Pb (mg/L)	Sb (mg/L)	Th230 (pCi/L)	Tl (mg/L)
JJ-1R	9/20/2005	<0.1	0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.05	<0.4	
JJ-1R	9/25/2006	<0.1	<0.01	<0.004	<0.001	0.5	<0.05	<0.005	<0.05	<0.4	<0.1
JJ-1R	10/30/2007	<0.1	0.01	<0.004	<0.001	0.5	<0.05	<0.005	<0.05	<0.4	<0.1
JJ-1R	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.5	<0.05	<0.005	<0.003	<0.4	<0.001
SWAB-1	9/20/2005	<0.1	<0.01	<0.004	<0.001	0.1	<0.05	<0.005	<0.05	<0.4	
SWAB-1	9/26/2006	<0.1	<0.01	<0.004	0.002	0.1	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-1	10/31/2007	<0.1	<0.01	<0.004	0.003	0.1	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-12	9/19/2005	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	
SWAB-2	9/19/2005	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	
SWAB-2	9/26/2006	<0.1	<0.01	<0.004	0.001	0.3	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-2	10/31/2007	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-2	9/19/2008	<0.1	<0.01	<0.004	0.001	0.4	<0.05	<0.005	<0.003	<0.1	<0.001
SWAB-22	9/19/2005	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	
SWAB-22	9/26/2006	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-22	10/30/2007	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-22	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.003	<0.4	<0.001
SWAB-29	9/19/2005	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	
SWAB-29	9/26/2006	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-29	10/31/2007	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-29	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	<0.001
SWAB-31	9/19/2005	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	
SWAB-31	9/26/2006	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-31	10/31/2007	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-31	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.003	<0.1	<0.001
SWAB-32	9/21/2005	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.05	<0.4	
SWAB-32	9/26/2006	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-32	10/31/2007	<0.1	<0.01	<0.004	0.002	0.4	<0.05	<0.005	<0.05	0.7	<0.1
SWAB-32	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.003	<0	<0.001

Table 1 Groundwater Monitoring Results (continued)

Well Name	Collection Date	Al (mg/L)	As (mg/L)	Be (mg/L)	Cd (mg/L)	F (mg/L)	Ni (mg/L)	Pb (mg/L)	Sb (mg/L)	Th230 (pCi/L)	Tl (mg/L)
SWAB-4	9/19/2005	<0.1	0.02	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	
SWAB-4	9/26/2006	<0.1	0.02	<0.004	<0.001	0.4	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-4	10/31/2007	<0.1	0.02	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	<0.1
SWAB-4	9/18/2008	<0.1	0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.003	<0.1	<0.001
WELL-1	2/11/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		0.4	
WELL-1	5/13/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	8/12/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	11/18/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	2/17/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	6/9/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	8/18/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	11/16/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	2/15/2005	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	5/11/2005	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-1	9/20/2005	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.05	<0.4	
WELL-1	4/5/2006	<0.1	<0.01	<0.004	<0.001	0.4	<0.05	<0.005	<0.003	<0.4	0.003
WELL-1	9/25/2006	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.003	<0.4	0.003
WELL-1	4/18/2007	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.003	<0.4	0.002
WELL-1	10/30/2007	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	0.002
WELL-1	4/21/2008	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	0.004
WELL-1	9/18/2008	<0.1	<0.01	<0.004	0.001	0.2	<0.05	<0.005	<0.003	<0.1	0.006
WELL-4R	2/10/2003	1.58	<0.01	<0.004	0.018		0.41	<0.005		<0.4	
WELL-4R	5/12/2003	2.08	<0.01	0.005	0.018		0.45	<0.005		<0.4	
WELL-4R	8/11/2003	2.53	<0.01	<0.004	0.017		0.41	<0.005		<0.4	
WELL-4R	11/18/2003	2.73	<0.01	0.004	0.02		0.46	<0.005		<0.4	
WELL-4R	2/17/2004	3.21	<0.01	0.005	0.02		0.49	<0.005		<0.4	
WELL-4R	6/7/2004	<0.1	<0.01	<0.004	0.016		0.42	<0.005		<0.4	
WELL-4R	8/16/2004	2.8	<0.01	<0.004	0.017		0.47	<0.005		<0.4	
WELL-4R	11/15/2004	2.3	<0.01	0.004	0.014		0.48	<0.005		<0.4	

Table 1 Groundwater Monitoring Results (continued)

Well Name	Collection Date	Al (mg/L)	As (mg/L)	Be (mg/L)	Cd (mg/L)	F (mg/L)	Ni (mg/L)	Pb (mg/L)	Sb (mg/L)	Th230 (pCi/L)	Tl (mg/L)
WELL-4R	2/14/2005	1.8	<0.01	<0.004	0.019		0.45	<0.005		<0.4	
WELL-4R	5/9/2005	2	<0.01	<0.004	0.018		0.48	<0.005		<0.4	
WELL-4R	9/19/2005	1.5	<0.01	<0.004	0.018	8.6	0.44	<0.005	<0.05	<0.4	
WELL-4R	4/6/2006	1.6	<0.01	<0.004	0.02	9.1	0.45	<0.005	<0.003	<0.4	<0.001
WELL-4R	9/25/2006	1.1	<0.01	<0.004	0.018	8.3	0.43	<0.005	<0.003	<0.4	<0.001
WELL-4R	4/18/2007	1.4	<0.01	<0.004	0.021	6.8	0.5	<0.005	<0.003	<0.4	<0.001
WELL-4R	10/30/2007	1.5	<0.01	<0.004	0.024	6.5	0.54	<0.005	<0.003	<0.4	<0.001
WELL-4R	4/21/2008	1.6	<0.01	<0.004	0.023	6.7	0.54	<0.005	<0.003	<0.1	0.001
WELL-4R	9/18/2008	1.6	<0.01	<0.004	0.024	6	0.56	<0.005	<0.003	<0.7	0.002
WELL-5	2/10/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	5/12/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	8/11/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	11/17/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	2/16/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	6/7/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	8/16/2004	0.3	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	11/15/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	2/14/2005	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	5/9/2005	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WELL-5	9/19/2005	<0.1	0.01	<0.004	0.001	<0.1	<0.05	<0.005	<0.05	<0.4	
WELL-5	4/6/2006	<0.1	0.002	<0.004	<0.001	<0.1	<0.05	<0.005	<0.003	<0.4	<0.001
WELL-5	9/25/2006	<0.1	<0.01	<0.004	<0.001	<0.1	<0.05	<0.005	<0.003	<0.4	<0.001
WELL-5	4/18/2007	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005	<0.003	<0.4	<0.001
WELL-5	10/30/2007	<0.1	<0.01	<0.004	<0.001	<0.1	<0.05	<0.005	<0.003	<0.4	<0.001
WELL-5	4/21/2008	<0.1	<0.01	<0.004	<0.001	<0.1	<0.05	<0.005	<0.003	<0	<0.001
WELL-5	9/18/2008	<0.1	<0.01	<0.004	<0.001	<0.1	<0.05	<0.005	<0.003	<0.1	<0.001

Table 1 Groundwater Monitoring Results (continued)

Well Name	Collection Date	Al (mg/L)	As (mg/L)	Be (mg/L)	Cd (mg/L)	F (mg/L)	Ni (mg/L)	Pb (mg/L)	Sb (mg/L)	Th230 (pCi/L)	Tl (mg/L)
WN-21	2/11/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	5/13/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	8/12/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	11/17/2003	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	2/16/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	6/8/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	8/17/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	11/16/2004	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	2/15/2005	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	5/10/2005	<0.1	<0.01	<0.004	<0.001		<0.05	<0.005		<0.4	
WN-21	9/20/2005	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	
WN-21	4/6/2006	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	<0.001
WN-21	9/26/2006	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	<0.001
WN-21	4/19/2007	<0.1	<0.01	<0.004	<0.001	0.3	<0.05	<0.005	<0.003	<0.4	<0.001
WN-21	10/30/2007	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	<0.001
WN-21	4/22/2008	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0	<0.001
WN-21	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<-0.3	<0.001
WN-39B	9/20/2005	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	
WN-39B	9/25/2006	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	<0.1
WN-39B	10/30/2007	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.05	<0.4	<0.1
WN-39B	9/18/2008	<0.1	<0.01	<0.004	<0.001	0.2	<0.05	<0.005	<0.003	<0.4	<0.001
WN-41B	9/20/2005	<0.1	<0.01	<0.004	<0.001	1.2	<0.05	<0.005	<0.05	<0.4	
WN-41B	9/25/2006	<0.1	0.01	<0.004	<0.001	1.2	<0.05	<0.005	<0.05	<0.4	<0.1
WN-41B	10/30/2007	<0.1	<0.01	<0.004	<0.001	1.3	<0.05	<0.005	<0.05	<0.4	<0.1
WN-41B	9/18/2008	<0.1	<0.01	<0.004	<0.001	1.2	<0.05	<0.005	<0.003	<0	<0.001

Table 1 Groundwater Monitoring Results (continued)

Well Name	Collection Date	Al (mg/L)	As (mg/L)	Be (mg/L)	Cd (mg/L)	F (mg/L)	Ni (mg/L)	Pb (mg/L)	Sb (mg/L)	Th230 (pCi/L)	Tl (mg/L)
WN-42A	9/20/2005	<0.1	0.01	<0.004	0.001	<0.1	<0.05	<0.005	<0.05	<0.4	
WN-42A	9/25/2006	<0.1	<0.01	<0.004	0.001	0.1	<0.05	<0.005	<0.003	<0.4	<0.001
WN-42A	10/30/2007	<0.1	<0.01	<0.004	<0.001	0.1	<0.05	<0.005	<0.05	<0.4	<0.1
WN-42A	8/5/2008	<0.1	<0.01	<0.004	<0.001	0.1	<0.05	<0.005	<0.003	<0	<0.001
WN-42A	9/18/2008	<0.1	<0.01	<0.004	<0.001	<0.1	<0.05	<0.005	<0.003	<0.2	<0.001