General

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection Division
Water Quality & RCRA (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-7969/FAX: (505) 665-9334

Date: August 22, 2006
Refer To: ENV-RCRA: 06-053
LA-UR: 06-5892

Mr. William C. Olson, Chief
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, New Mexico 87502-6110

SUBJECT: MONITOR WELL REHABILITATION AND PURGE WATER DISCHARGES

Dear Mr. Olson:

Los Alamos National Laboratory is in receipt of your March 31, 2006, letter (enclosed) to Mr. Steven Rae, Group Leader, Water Quality & Hydrology Group, regarding monitor well rehabilitation and purge water discharges. Your letter was received by the Laboratory on April 7, 2006. In your letter you present comments and requirements concerning (1) the discharge of fluids generated during the rehabilitation of monitoring wells and (2) the Workplan NOI Decision Tree as contained in the Laboratory's July 16, 2002, and August 2, 2002, documents. The Laboratory's response to your comments and requirements is presented below.

Your comments and requirements concerning the discharge of fluids generated during the rehabilitation of monitoring wells have been reviewed by the Laboratory. The Laboratory does not wish to seek a NM WQCC Discharge Permit for this activity and will therefore comply with your requirements to store all fluids generated during well rehabilitation onsite and analyze those fluids to show that they meet NM WQCC and applicable RCRA regulatory limits prior to discharge. These requirements are being followed at monitoring well R-20 where rehabilitation work is currently underway.

The second set of comments and requirements you identified in your letter concern the adequacy of the Laboratory's current Workplan NOI Decision Tree for the discharge of sampling purge water. Specifically, you requested that the current Workplan NOI Decision Tree be modified to include the contingency plan outlined in section 2.a. of your March 31st letter. Additionally, you requested that the Laboratory submit a modified Workplan NOI Decision Tree within 30 days of receipt of your letter. Mr. Christopher Vick, Ground Water Quality Bureau, issued an extension of this due date to allow for Laboratory and NMED staff to negotiate a mutually acceptable modification of the Workplan NOI Decision Tree.

I would like to acknowledge the collaborative effort that has transpired over the past four months between Mr. Christopher Vick, Ground Water Quality Bureau, Mr. John Young, Hazardous Waste Bureau, and Laboratory staff in negotiating a mutually acceptable modification of the Workplan NOI Decision. Enclosed is the Laboratory's proposed, modified NOI Decision Tree—Revised 7/26/06 for your review and approval. I would like to bring to your attention the following key revisions:

1. The proposed NOI Decision Tree replaces entirely the current Workplan NOI Decision Tree providing coverage for all of the following ground water well activities: drilling, development, rehabilitation, and well purging (sampling).

2. The proposed NOI Decision Tree includes a contingency plan to address your staff's concerns about dynamic ground water conditions and analytical uncertainties.

3. The proposed NOI Decision Tree incorporates Consent Order requirements to compare contaminant concentrations to the more stringent of NM WQCC limits or SDWA MCLs.

4. The proposed NOI Decision Tree includes the Laboratory's six wastewater treatment facilities as potential disposal pathways for fluids that do not meet the criteria for land application.

5. And finally, the proposed NOI Decision Tree includes new decision points for the management of fluids that contain RCRA Hazardous Waste or Hazardous Constituents above RCRA Regulatory Limits.

In summary, the proposed NOI Decision Tree establishes more rigorous and comprehensive requirements for the discharge of fluids generated during ground water monitoring activities.

The proposed NOI Decision Tree contains specific numeric limits that all fluids must meet in order to qualify for land application (NOI Decision Tree, Decision Point D6). The enclosed tables, Table 1.0 and 2.0, lists all NM WQCC 3103 contaminants, SDWA MCLs, and NM WQCC Toxic Pollutants and the applicable NOI Decision Tree limit for each (highlighted in yellow). The Laboratory submits these tables as supporting documentation for the proposed NOI Decision Tree.

The proposed NOI Decision Tree and Tables 1.0 and 2.0 are being submitted for your agency's review and approval. Please contact me at (505) 667-7969 if you have any questions or concerns regarding this letter or the enclosed documents.

Sincerely,

Bob Beers
Water Quality & RCRA Group

BB/tag

Enclosures

Cy: J. Bearzi, NMED/HWB, Santa Fe, NM, w/enc.
J. Young, NMED/HWB, Santa Fe, NM, w/enc.
C. Vick, NMED/GWQB, Santa Fe, NM, w/enc.
S. Yanicak, NMED/DOE/OB, w/enc., MS J993
M. Johansen, NNSA/LASO, w/enc., MS A316
J.A. Van Prooyen, PADOPS, w/enc., MS A102
D. Watkins, ADESHQ, w/enc., MS K491
A. Phelps, ADEP, w/enc., MS J591
T. George, ENV-DO, w/enc., MS J978
C. Behr-Andres, LWSP, w/enc., MS M992
J. Dewart, LWSP, w/enc., MS M992
D. Katzman, LWSP, w/enc., MS M992
T. Sandoval, ENV-RCRA, w/enc., MS K490
M. Saladen, ENV-RCRA, w/enc., MS K490
K. Vanderpoel, ENV-RCRA, w/enc., MS K490
J. English, ENV-RCRA, w/enc., MS K490
A. Groffman, ERSS, w/enc., MS M992
M. Everett, ERSS-RS, w/enc., MS M992
M. Alexander, ERSS-GS, w/enc., MS K497
R. Evans, ERSS-DO, w/enc., MS M327
ENV-RCRA, File, w/enc., MS K490
IRM-RMMSO, w/enc., MS A150

Attachment 1.0

NMED Letter to Mr. Steven Rae

LANL

March 31, 2006

State of New Mexico
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2918
Fax (505) 827-2965

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 31, 2006

Steven Rae, Group Leader
Water Quality & Hydrology Group
Los Alamos National Laboratory
P.O. Box 1663, MS J591
Los Alamos, NM 87545

RE: Monitor Well Rehabilitation and Purge Water Discharges, LANL Hydrogeologic Work plan Wells

Dear Mr. Rae:

Los Alamos National Laboratories (LANL) recently informed the New Mexico Environment Department (NMED), Ground Water Quality Bureau (GWQB) that LANL will be rehabilitating ground water monitoring wells at the LANL facility in Los Alamos, New Mexico. During this discussion, LANL stated that it did not believe that sampling of water from the rehabilitation activities was necessary prior to discharging onsite pursuant to LANL's July 16, 2002 and August 2, 2002 documents titled Notice of Intent to Discharge, Hydrogeologic Workplan Wells and NMED's August 7, 2002 finding that no Discharge Permit was required for these discharges.

After a review of the above-referenced documents the NMED has the following comments and requirements:

1. It is the opinion of NMED that rehabilitation of monitor wells is a well development activity, and that this activity also has the potential to generate water contaminants in excess of the New Mexico Water Quality Control Commission (WQCC) standards. Therefore, unless LANL wishes to seek a WQCC Discharge Permit for this activity, NMED requires that discharges of well rehabilitation fluids follow the "Workplan NOI Decision Tree" for "Development Water" as contained in LANL's July 16, 2002 and August 2, 2002 documents. This means that fluids generated from rehabilitation of any monitoring well shall be stored onsite, and sampled and analyzed to show that the fluid meets WQCC and applicable RCRA regulatory limits prior to discharge at the site.

2. The NMED has noted that the above-referenced documents do not contain a contingency plan to cover discharges of purge water in the instance that future water quality sampling of a monitoring well shows that a well contains water contaminants in excess of water quality standards. Such a contingency is necessary to prevent discharges of water contaminants from migrating into the subsurface and potentially causing ground water contamination. Therefore, NMED requires that:

   a. In the event that future water quality sampling of any particular monitoring well shows that the well contains water contaminants within 50% of either the WQCC standards or applicable RCRA regulatory limits, from that point forward, LANL shall store onsite, and sample and analyze purge water from that well to show that the fluid meets WQCC and applicable RCRA regulatory limits prior to discharge at the site.

   b. LANL modify the "Workplan NOI Decision Tree" for "Sampling Purge Water" in the above-referenced LANL documents to include the above contingency plan. Please submit the modified "Workplan NOI Decision Tree" for "Sampling Purge Water" within 30 days of receipt of this letter.

If you have any questions, please contact either Chris Vick of the GWQB staff at 505-827-0078 or George Schuman, Program Manager of the Ground Water Pollution Prevention Section, at 505-827-2945.

Sincerely,

William C. Olson, Chief
Ground Water Quality Bureau

cc: ✓Bob Beers, Water Quality & Hydrology Group, Los Alamos National Laboratory, P.O. Box 1663, MS K497, Los Alamos, NM 87545
Cecilia Williams, District Manager, NMED District II
NMED Santa Fe Field Office
James Bearzi, Bureau Chief, Hazardous Waste Bureau, NMED, PO Box 26110, Santa Fe, NM 87502
John Young, Hazardous Waste Bureau, NMED, PO Box 26110, Santa Fe, NM 87502
NOI File
County File

Attachment 2.0

Modified NOI Decision Tree

Revised 7/26/06

Will Ground Water Well Activities Generate Drilling, Development, Rehabilitation, or Sampling Purge Water?

Yes

D=Decision Point
P=Disposal Pathway
A=Action Item
R=NMED Reporting

D1: Are There Existing Water Quality Data and Are They Less Than 1-Yr Old?

No

A1: Containerize Water On-Site and Hold For WQ Data. Once the data are received and validated then return to **D1**.

Yes

Go to Page 2

Yes

D2: Does Water Contain a RCRA Hazardous Waste or Hazardous Constituents Above RCRA Regulatory Limits?

No

Yes

P2: Land Application of Water On-Site and In Accordance w/ the Terms and Conditions of the August 2, 2001, NOI Letter from LANL to NMED (ESH-18/WQ&H:01-234).

R1: Submit summary report to the NMED.

D6: Do Water Quality Data Meet the Following Criteria?

(1) <90% of the lower of the NMWQCC 3103 Standards or SDWA MCLs[1]
(2) <90% of the 4 ppb level for perchlorate
(3) <90% of the EPA Region 6 Tap Water Human Health Medium-Specific Screening Levels[2] for NMWQCC listed Toxic Pollutants without 3103 standards or MCLs

[1]If the alluvial background concentration of a contaminant is greater than the 3103 standard or MCL then the background concentration shall be used for this decision point instead of the 3103 standard or MCL.
[2]Adjusted to a 10^{-5} risk level for carcinogens.

No

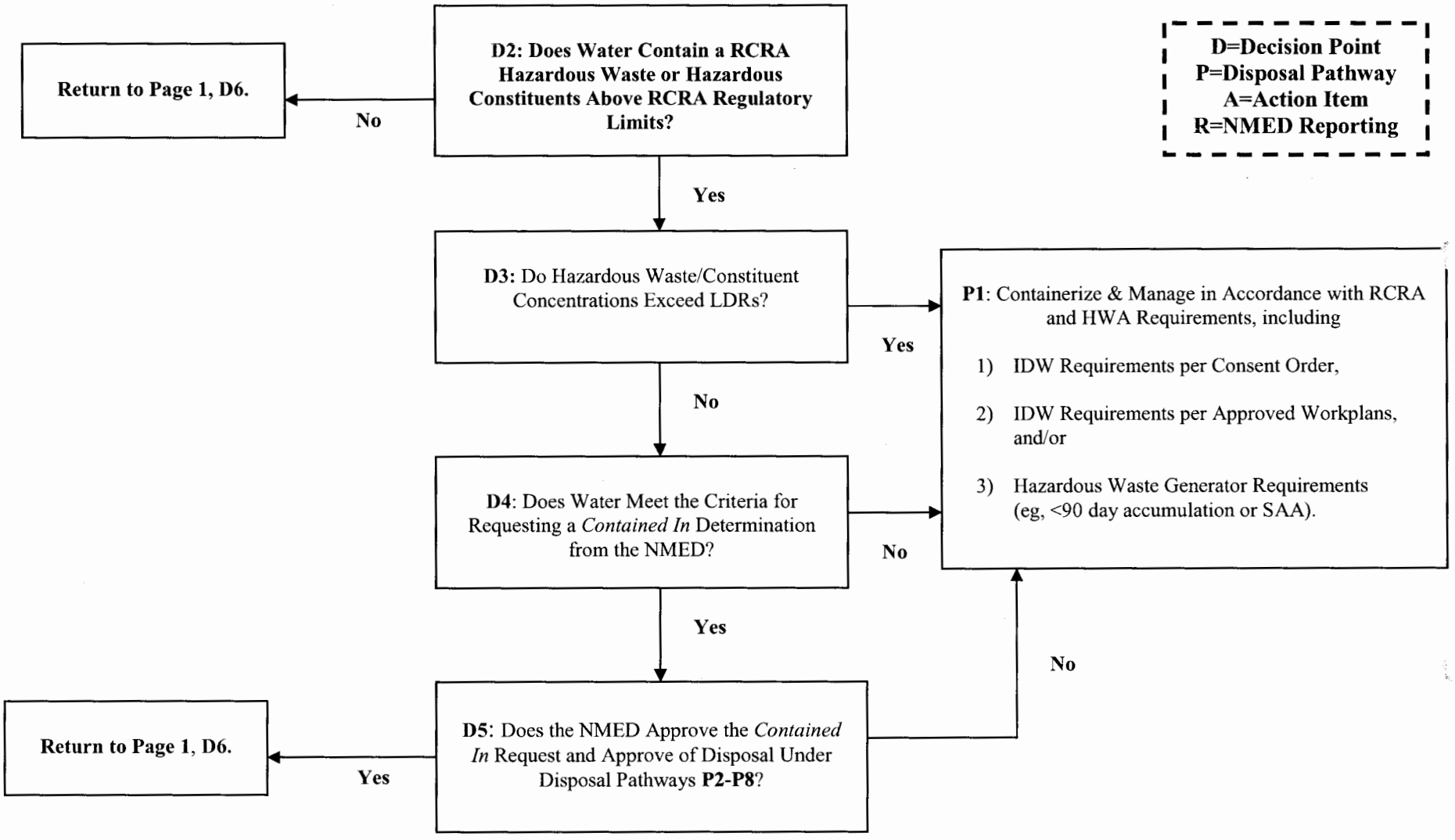
D7: Do Water Quality Data Meet the Waste Acceptance Criteria (WAC) For Any of LANL's Wastewater Treatment Facilities (P3-P8)?

No

P9: Seek alternative treatment and/or disposal options and coordinate with the NMED.

Yes

P3: HEWTF | P4: RLWTF | P5: TA-53 Evap Basins | P6: SERF | P7: SERF Evap Basins | P8: SWWS Plant


D=Decision Point
P=Disposal Pathway
A=Action Item
R=NMED Reporting
D2: Does Water Contain a RCRA Hazardous Waste or Hazardous Constituents Above RCRA Regulatory Limits?
No
Return to Page 1, D6.
Yes
D3: Do Hazardous Waste/Constituent Concentrations Exceed LDRs?
Yes
P1: Containerize & Manage in Accordance with RCRA and HWA Requirements, including
1) IDW Requirements per Consent Order,
2) IDW Requirements per Approved Workplans, and/or
3) Hazardous Waste Generator Requirements (eg, <90 day accumulation or SAA).
No
D4: Does Water Meet the Criteria for Requesting a Contained In Determination from the NMED?
No
Yes
D5: Does the NMED Approve the Contained In Request and Approve of Disposal Under Disposal Pathways P2-P8?
No
Yes
Return to Page 1, D6.

Attachment 3.0

Table 1.0

NOI Decision Tree

Table 1.0. NOI Decision Tree, Decision Point D6(1), Water Quality Criteria for Land Application.

	20.6.2.3103 NMAC Ground Water Contaminants	CAS #	3103 Standards[1]	Primary SDWA MCLs[1]
	A. Human Health Standards			
1	Arsenic (As)	7440-38-2	0.1 mg/L	0.01 mg/L
2	Barium (Ba)	7440-39-3	1.0 mg/L	2 mg/L
3	Cadmium (Cd)	7440-43-9	0.01 mg/L	0.005 mg/L
4	Chromium (Cr)	7440-47-3	0.05 mg/L	0.1 mg/L
5	Cyanide (CN)	57-12-5	0.2 mg/L	0.2 mg/L
6	Fluoride (F)	16984-48-8	1.6 mg/L	4.0 mg/L
7	Lead (Pb)	7439-92-1	0.05 mg/L	0.015 mg/L (Action Level)
8	Total Mercury (Hg)	7439-97-6	0.002 mg/L	0.002 mg/L
9	Nitrate (NO3 as N)		10 mg/L	10 mg/L
10	Selenium (Se)	7782-49-2	0.05 mg/L	0.05 mg/L
11	Silver (Ag)	7440-22-4	0.05 mg/L	
12	Uranium (U)	7440-61-1	0.03 mg/L	0.03 mg/L
13	Radioactivity: Combined Radium-226 & 228		30 pCi/L	5 pCi/L
14	Benzene	71-43-2	0.01 mg/L	0.005 mg/L
15	Polychlorinated biphenyls (PCB's)	1336-36-3	0.001 mg/L	0.0005 mg/L
16	Toluene	108-88-3	0.75 mg/L	1 mg/L
17	Carbon Tetrachloride	56-23-5	0.01 mg/L	0.005 mg/L
18	1,2-dichloroethane (EDC)	107-06-2	0.01 mg/L	0.005 mg/L
19	1,1-dichloroethylene (1,1-DCE)	75-35-4	0.005 mg/L	0.007 mg/L
20	1,1,2,2-tetrachloroethylene (PCE)	127-18-4	0.02 mg/L	0.005 mg/L
21	1,1,2-trichloroethylene (TCE)	79-01-6	0.1 mg/L	0.005 mg/L
22	ethylbenzene	100-41-4	0.75 mg/L	0.7 mg/L
23	total xylenes	1330-20-7	0.62 mg/L	10 mg/L
24	methylene chloride (dichloromethane)	75-09-2	0.1 mg/L	0.005 mg/L
25	chloroform	67-66-3	0.1 mg/L	0.08 mg/L
26	1,1-dichloroethane	75-34-3	0.025 mg/L	
27	ethylene dibromide (EDB)	106-93-4	0.0001 mg/L	0.00005 mg/L
28	1,1,1-trichloroethane	71-55-6	0.06 mg/L	0.2 mg/L
29	1,1,2-trichloroethane	79-00-5	0.01 mg/L	0.005 mg/L
30	1,1,2,2-tetrachloroethane	79-34-5	0.01 mg/L	
31	vinyl chloride	75-01-4	0.001 mg/L	0.002 mg/L
32	PAHs: total naphthalene plus monomethylnaphthalenes	65996-93-2	0.03 mg/L	
33	benzo-a-pyrene	50-32-8	0.0007 mg/L	0.0002 mg/L

Notes:

[1]Decision Point D6(1) specifies <90% of the lower of the 3103 standards or SDWA MCLs.

Table 1.0. NOI Decision Tree, Decision Point D6(1), Water Quality Criteria for Land Application (con't).

	20.6.2.3103 NMAC Ground Water Contaminants	CAS #	3103 Standards[1]	Primary SDWA MCLs[1]
	B. Other Standards for Domestic Water Supply			
1	Chloride (Cl)	16887-00-6	250.0 mg/L	
2	Copper (Cu)	7440-50-8	1.0 mg/L	1.3 mg/L (Action Level)
3	Iron (Fe)	7439-89-6	1.0 mg/L	
4	Manganese (Mn)	7439-96-5	0.2 mg/L	
5	Phenols	108-95-2	0.005 mg/L	
6	Sulfate (SO4)	14808-79-8	600 mg/L	
7	Total Dissolved Solids (TDS)		1000 mg/L	
8	Zinc (Zn)	7440-66-6	10.0 mg/L	
9	pH		between 6 and 9	
	C. Standards for Irrigation Use			
1	Aluminum (Al)	7429-90-5	5.0 mg/L	
2	Boron (B)	7440-42-8	0.75 mg/L	
3	Cobalt (Co)	7440-48-4	0.05 mg/L	
4	Molybdenum (Mo)	7439-98-7	1.0 mg/L	
5	Nickel (Ni)	7440-02-0	0.2 mg/L	

	National Primary Drinking Water Standards[2]	CAS #	3103 Standards[1]	Primary SDWA MCLs[1]
1	Antimony (Sb)	7440-36-0	NA	0.006 mg/L
2	Beryllium (Be)	7440-41-7	NA	0.004 mg/L
3	Thallium (Tl)	7440-28-0	NA	0.002 mg/L
4	p-Dichlorobenzene	106-46-7	NA	0.075 mg/L
5	cis-1,2-Dichloroethylene	156-59-2	NA	0.07 mg/L
6	trans-1,2-Dichloroethylene	156-60-5	NA	0.1 mg/L
7	1,2-Dichloropropane	78-87-5	NA	0.005 mg/L
8	Chlorobenzene	108-90-7	NA	0.1 mg/L
9	o-Dichlorobenzene	95-50-1	NA	0.6 mg/L
10	Styrene	100-42-5	NA	0.1 mg/L
11	1,2,4-Trichlorobenzene	120-82-1	NA	0.07 mg/L

Notes:

[1]Decision Point D6(1) specifies <90% of the lower of the 3103 standards or SDWA MCLs.

[2]Primary Drinking Water Standards without a NM WQCC 3103 standard,

Attachment 4.0

Table 2.0

NOI Decision Tree

Table 2.0. NOI Decision Tree, Decision Point D6(3), Water Quality Criteria for Land Application.

		20.6.2.7 NMAC Toxic Pollutants	CAS #	3103 Standards[1] (ppb)	SDWA MCLs[1] (ppb)	Tap Water HHMSSLs[1,2] (ppb)	KEY[3]
1		acrolein	107-02-8			0.042	N
2		acrylonitrile	107-13-1			0.039	C
3		aldrin	309-00-2			0.004	C
4		benzene	71-43-2	10	5.0	0.354	C
5		benzidine	92-87-5			0.0003	C
6		carbon tetrachloride	56-23-5	10	5.0	0.171	C
7		chlordane	57-74-9		2.0	0.192	C
8		**chlorinated benzenes**					
8	a	monochlorobenzene	108-90-7		100	107	N
8	b	hexachlorobenzene	118-74-1		1.0	0.042	C
8	c	pentachlorobenzene	608-93-5			29.2	N
9		1,2,4,5-tetrachlorobenzene	95-94-3			11.0	N
10		**chlorinated ethanes**					
10	a	1,2-dichloroethane	107-06-2	10	5.0	0.123	C
10	b	hexachloroethane	67-72-1			4.80	C
10	c	1,1,2,2-tetrachloroethane	79-34-5	10		0.055	C
10	d	1,1,1-trichloroethane	71-55-6	60	200	836	N
10	e	1,1,2-trichloroethane	79-00-5		5.0	0.200	C
11		**chlorinated phenols**					
11	a	2,4-dichlorophenol	120-83-2			110	N
11	b	2,4,5-trichlorophenol	95-95-4			3,650	N
11	c	2,4,6-trichlorophenol	88-06-2			6.11	C
12		**chloroalkyl ethers**					
12	a	bis (2-chloroethyl) ether	111-44-4			0.010	C
12	b	bis (2-chloroisopropyl) ether	108-60-1	No standard or screening level.			
12	c	bis (chloromethyl) ether	542-88-1	Not analyzed for.			
13		chloroform	67-66-3	100	80	0.167	C
14		DDT	50-29-3			0.198	C
15		dichlorobenzene (1,4-)	106-46-7		75		
16		dichlorobenzidine	91-94-1			0.149	C
17		1,1-dichloroethylene	75-35-4	5	7.0	339	N
18		dichloropropenes (1,3-)	542-75-6			0.395	C
19		dieldrin	60-57-1			0.004	C

Notes:

[1]Decision Point D6 Criteria: (1) <90% of the lower of the NMWQCC 3103 Standards or SDWA MCLs, (2) <90% of the 4 ppb level for perchlorate, and (3) <90% of the EPA Region 6 Tap Water HHMSSLs for Toxic Pollutants without a 3103 standard or MCL.

[2]Tap Water Human Health Medium-Specific Screening Levels are based upon a 10^{-5} risk level for carcinogens.

[3]Key: C=Cancer, N=Noncancer.

Table 2.0. NOI Decision Tree, Decision Point D6(3), Water Quality Criteria for Land Application (con't).

		20.6.2.7 NMAC Toxic Pollutants	CAS #	3103 Standards[1] (ppb)	SDWA MCLs[1] (ppb)	Tap Water HHMSSLs[1,2] (ppb)	KEY[3]
20		diphenylhydrazine	122-66-7	No standard or screening level			
21		endosulfan	115-29-7			219	N
22		endrin	72-20-8		2.0	11.0	N
23		ethylbenzene	100-41-4	750	700	1,340	N
24		**halomethanes**					
24	a	bromodichloromethane	75-27-4			0.181	C
24	b	bromomethane	74-83-9			8.66	N
24	c	chloromethane	74-87-3			2.13	C
24	d	dichlorodifluoromethane	75-71-8			395	N
24	e	dichloromethane	75-09-2	100		4.28	C
24	f	tribromomethane	75-25-2			8.51	C
24	g	trichlorofluoromethane	75-69-4			1,288	N
25		heptachlor	76-44-8		0.4	0.015	C
26		hexachlorobutadiene	87-68-3			0.862	C
27		**hexachlorocyclohexane (HCH)**				0.037	C
27	a	alpha-HCH	319-84-6			0.011	C
27	b	beta-HCH	319-85-7			0.037	C
27	c	gamma-HCH	58-89-9		0.2	0.052	C
27	d	technical HCH	608-73-1			0.037	C
28		hexachlorocyclopentadiene	77-47-4		50	219	N
29		**high explosives (HE)**					
29	a	2,4-dinitrotoluene (2,4,DNT)	121-14-2			73.0	N
29	b	2,6-dinitrotoluene (2,6,DNT)	606-20-2			36.5	N
29	c	HMX	2691-41-0			1,825	N
29	d	RDX	121-82-4			0.611	C
29	e	2,4,6-trinitrotoluene (TNT)	118-96-7			2.24	C
30		isophorone	78-59-1			70.8	C
31		methyl tertiary butyl ether	1634-04-4			6.23	C
32		nitrobenzene	98-95-3			3.40	N
33		**nitrophenols**					
33	a	2,4-dinitro-o-cresol	534-52-1	No standard or screening level			
33	b	dinitrophenols (2,4-dinitrophenol)	51-28-5			73	N
34		**nitrosamines**					
34	a	N-nitrosodiethylamine	55-18-5			0.0004	C
34	b	N-nitrosodimethylamine	62-75-9			0.001	C

Notes:

[1]Decision Point D6 Criteria: (1) <90% of the lower of the NMWQCC 3103 Standards or SDWA MCLs, (2) <90% of the 4 ppb level for perchlorate, and (3) <90% of the EPA Region 6 Tap Water HHMSSLs for Toxic Pollutants without a 3103 standard or MCL.

[2]Tap Water Human Health Medium-Specific Screening Levels are based upon a 10^{-5} risk level for carcinogens.

[3]Key: C=Cancer, N=Noncancer.

Table 2.0. NOI Decision Tree, Decision Point D6(3), Water Quality Criteria for Land Application (con't).

		20.6.2.7 NMAC Toxic Pollutants	CAS #	3103 Standards[1] (ppb)	SDWA MCLs[1] (ppb)	Tap Water HHMSSLs[1,2] (ppb)	KEY[3]
34	c	N-nitrosodibutylamine	924-16-3			0.020	C
34	d	N-nitrosodiphenylamine	86-30-6			13.7	C
34	e	N-nitrosopyrrolidine	930-55-2			0.032	C
35		pentachlorophenol	87-86-5		1.0	0.560	C
36		perchlorate	14797-73-0	Consent Order limit =4 ppb			
37		phenol	108-95-2			10,950	N
38		**phthalate esters**					
38	a	dibutyl phthalate	84-74-2			3,650	N
38	b	di-2-ethylhexyl phthalate	117-81-7		6.0	4.80	C
38	c	diethyl phthalate	84-66-2			29,200	N
38	d	dimethyl phthalate	131-11-3			365,000	N
39		polychlorinated biphenyls (PCB's)	1336-36-3	1	0.5	0.034	C
40		**PAHs (total)**		30			
40	a	anthracene	120-12-7			1,825	N
40	b	3,4-benzofluoranthene	205-99-2			0.092	C
40	c	benzo (k) fluoranthene	207-08-9			0.921	C
40	d	fluoranthene	206-44-0			1,460	N
40	e	fluorene	86-73-7			243	N
40	f	phenanthrene	85-01-8			13.7	C
40	g	pyrene	129-00-0			183	N
41		tetrachloroethylene	127-18-4	20	5.0	0.105	C
42		toluene	108-88-3	750	1000	2,281	N
43		toxaphene	8001-35-2		3.0	0.061	C
44		trichloroethylene	79-01-6	100	5.0	0.028	C
45		vinyl chloride	75-01-4	1	2.0	0.015	C
46		**xylenes (total)**	1330-20-7	620	1000		
46	a	o-xylene	95-47-6			1,431	N
46	b	m-xylene	108-38-3			208	N
46	c	p-xylene	106-42-3	No standard or screening level			
47		1,1-dichloroethane	75-34-3	25		1,217	N
48		ethylene dibromide (EDB)	106-93-4	0.1		0.006	C
49		cis-1,2-dichloroethylene	156-59-2		70	60.8	N
50		trans-1,2-dichloroethylene	156-60-5		100	122	N
51		naphthalene	91-20-3			6.20	N
52		1-methylnaphthalene	90-12-0	No standard or screening level			
53		2-methylnaphthalene	91-57-6	No standard or screening level			
54		benzo-a-pyrene	50-32-8	0.7	0.2	0.009	C

Notes:

[1]Decision Point D6 Criteria: (1) <90% of the lower of the NMWQCC 3103 Standards or SDWA MCLs, (2) <90% of the 4 ppb level for perchlorate, and (3) <90% of the EPA Region 6 Tap Water HHMSSLs for Toxic Pollutants without a 3103 standard or MCL.

[2]Tap Water Human Health Medium-Specific Screening Levels are based upon a 10^{-5} risk level for carcinogens.

[3]Key: C=Cancer, N=Noncancer.