> --- Marc Bailey <marc@lanl.gov> wrote:
>
> > Date: Mon, 29 Aug 2005 14:07:35 -0600
> > To: dfinfrock63@yahoo.com
> > From: Marc Bailey <marc@lanl.gov>
> > Subject: NPDES Permit - CY2004 Flow Data
> > CC: saladen@lanl.gov
> >
> > Debbie-
> >
> > Per your request.......
> >
> > In March, the CY2004 flow data was provided to
> Paul
> > Schumann
> > of ENV-SWRC who provided it to ENV-ECO for the CY
> > 2004 SWEIS
> > Yearbook. Is that what you are working on?
> >
> > Marc
> >
> > Marc Bailey (marc@lanl.gov)
> > ENV - Water Quality and Hydrology
> > Regulatory Compliance and Line Services Team
> > 665-8135   699-4926 (cell)
> > MS K497
> >
****
> Debbie J. Finfrock, P.E.
> Finfrock Engineering
> 24 Doc Holiday Rd.
> Edgewood, NM 87015-8259
> Phone and FAX (505) 286-6458
> dfinfrock63@yahoo.com
> www.finfro.com

DISCHARGE BY OUTFALL

CY 2004

Name	Outfall	Key Facility		**MG/Y**
RLWTF	051	WMO: RLWTF (TA-50, 21)		2.140000
SWWS	13S	Non-Key		104.066000
POWER PLANT	001	Non-Key total including SWWS	108.850	4.784000
STEAM PLANT	02A129	Tritium Facilities		22.009500
	03A021	CMR Building		1.186250
	03A022	Sigma Complex		1.971000
	03A024	Sigma Complex		0.000000
SCC	03A027	Non-Key		6.929003
	03A028	High Explosives Testing Facilities		0.050320
	03A047	LANSCE		0.000000
	03A048	LANSCE		7.4707
	03A049	LANSCE		0.000000
	03A113	LANSCE		0.65098
	03A130	High Explosives Processing Facilities		0.002982
	03A158	Tritium Facilities		0.085410
	03A160	Non-Key		7.884000
	03A181	Plutonium Facility Complex		2.722430
	03A185	High Explosives Testing Facilities		0.534000
HEWTF	05A055	High Explosives Processing Facilities		0.03451
	05A097	High Explosives Processing Facilities		0.000000
LDCC (future)	03A199	Non-Key		0.0000

totalized flow 162.52

Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES Permit No.
NM0028355

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended,
(33 U.S.C. 1251 et. seq; the "Act"),

University of California
Management Contractor for Operations
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

and

U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

are authorized to discharge from a facility located at Los Alamos,

to receiving waters named Mortandad Canyon, Canada del Buey, Los Alamos Canyon, Sandia Canyon, Ten Site Canyon, Canon de Valle, and Water Canyon, which are unclassified tributaries to the Rio Grande in Waterbody Segment Code No. 20.6.4.114, of the Rio Grande Basin,

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Parts I [Requirements for NPDES Permits - 36 pages], II [Other Conditions - 4 pages], III [Standard Conditions for NPDES Permits - 8 pages], and IV [Sewage Sludge Requirements - 18 pages] hereof.

This permit supersedes and replaces NPDES Permit No. NM0028355 issued June 24, 1994.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Prepared by

Sam Becker
Acting Director

J. Scott Wilson
Environmental Scientist

PART I - REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001
Discharge Type: Continuous
Latitude 35°52'26"N, Longitude 106°19'08"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge Power Plant waste water from cooling towers, boiler blowdown drains, demineralizer backwash, and sanitary re-use to Sandia Canyon, an unclassified tributary of the Rio Grande, in Segment Number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

_____ pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM
pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
pH (Standard Units) STORET: 00400	1/Month	Grab

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
TSS STORET: 00530	****	****	30	100
Total Residual Chlorine STORET: 50060	****	****	11 ug/l	11 ug/l
Total Arsenic (*2) STORET: 01002	****	****	0.296	0.296
Total Chromium (*2) STORET: 01034	****	****	4.36	4.36
Total Copper (*2) STORET: 01042	****	****	1.02	1.02
Total Lead (*2) STORET: 01051	****	****	0.38	0.38

Total Zinc (*2) STORET: 01092	****	****	56.25	56.25
Total Aluminum (*2) STORET: 01105	****	****	5.0	5.0
Total Boron (*2) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*2) STORET: 01037	****	****	1.0	1.0
Total Cadmium (*2) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Mercury (*2) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Selenium (*2) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*2) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*2) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*1)(*2) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/Month	Estimate
TSS STORET: 00530	1/Month	Grab
Total Residual Chlorine STORET: 50060	1/Month	Grab
Total Arsenic STORET: 01002	1/Year	Grab
Total Chromium STORET: 01034	1/Year	Grab
Total Copper STORET: 01042	1/Year	Grab
Total Lead STORET: 01051	1/Year	Grab
Total Zinc STORET: 01092	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Cadmium STORET: 01027	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab

Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*1) STORET: 82136	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge from Outfall 001 (Latitude 35°52'26"N, Longitude 106°19'08"W).

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 When accelerator produced.

*2 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

OUTFALL 13S

Discharge Type: Continuous
Latitude 35°51'08"N, Longitude 106°16'33"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge treated sanitary waste water to Sandia Canyon or Canada del Buey, unclassified tributaries of the Rio Grande, in Segment Number 20.6.4.114 of the Rio Grande Basin and to outfalls utilizing treated effluent as specified in Outfall 001 and Category 03A (*3).

Such discharges shall be limited and monitored by the permittee as specified below:

---

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM
pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
pH (Standard Units) STORET: 00400	1/Week	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
BOD5 (*6) STORET: 00310	72	108	30	45
TSS (*6) STORET: 00530	72	108	30	45
BOD5 (*7) STORET: 00310	77	116	30	45
TSS (*7) STORET: 00530	77	116	30	45
BOD5 (*8)	79.6	119	30	45

STORET: 00310				
TSS (*9)	79.6	119	30	45
STORET: 00530				
Fecal Coliform Bacteria (*1)	****	****	500 (#/100ml)	500 (#/100ml)
STORET: 74055				
Total Residual Chlorine (*5)	****	****	11 ug/l	11 ug/l
STORET: 50060				
Total Arsenic (*4)	****	****	329 ug/l	329 ug/l
STORET: 01002				
Total Chromium (*4)	****	****	4.63	4.63
STORET: 01034				
Total Copper (*4)	****	****	1.19	1.19
STORET: 01042				
Total Lead (*4)	****	****	449 ug/l	449 ug/l
STORET: 01051				
Total Zinc (*4)	****	****	68.45	68.45
STORET: 01092				
Total Aluminum (*4)	****	****	5.0	5.0
STORET: 01105				
Total Boron (*4)	****	****	5.0	5.0
STORET: 01022				
Total Cobalt (*4)	****	****	1.0	1.0
STORET: 01037				
Total Cadmium (*4)	****	****	50 ug/l	50 ug/l
STORET: 01027				
Total Mercury (*4)	****	****	0.77 ug/l	0.77 ug/l
STORET: 71900				
Total Selenium (*4)	****	****	5.0 ug/l	5.0 ug/l
STORET: 01147				
Total Vanadium (*4)	****	****	100 ug/l	100 ug/l
STORET: 01087				
Radium 226 + Radium 228 (*4)	****	****	30 pCi/l	30 pCi/l
STORET: 11503				
Tritium (*2)(*4)	****	****	20,000 pCi/l	20,000 pCi/l
STORET: 82136				

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	Continuous	Totalizer Record
STORET: 50050		
BOD5	3/Month	24-Hr Composite
STORET: 00310		
TSS	1/Month	24-Hr Composite
STORET: 00530		
Fecal Coliform Bacteria	1/Month	Grab
STORET: 74055		
Total Residual Chlorine (*5)	1/Month	Grab
STORET: 50060		
Total Arsenic	1/Year	Grab

STORET: 01002		
Total Chromium	1/Year	Grab
STORET: 01034		
Total Copper	1/Year	Grab
STORET: 01042		
Total Lead	1/Year	Grab
STORET: 01051		
Total Zinc	1/Year	Grab
STORET: 01092		
Total Aluminum	1/Year	Grab
STORET: 01105		
Total Boron	1/Year	Grab
STORET: 01022		
Total Cobalt	1/Year	Grab
STORET: 01037		
Total Cadmium	1/Year	Grab
STORET: 01027		
Total Mercury	1/Year	Grab
STORET: 71900		
Total Selenium	1/Year	Grab
STORET: 01147		
Total Vanadium	1/Year	Grab
STORET: 01087		
Radium 226 + Radium 228	1/Year	Grab
STORET: 11503		
Tritium (*2)	1/Year	Grab
STORET: 82136		

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the Parshall Flume following the chlorine contact chamber (Latitude 35°51'08"N, Longitude 106°16'33"W) and prior to discharge to either Canada del Buey at Latitude 35°51'07"N, Longitude 106°16'27"W, or into the effluent reuse line to Sandia Canyon at Latitude 35°52'29"N, Longitude 106°18'38"W, or other outfalls utilizing treated effluent in the Outfall 001 and Category 03A

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

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*1 Logarithmic mean.

*2 When accelerator produced.

*3 See Part II.G.

*4 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

*5 Effluent limitations and monitoring requirements only apply when discharge is made to Canada del Buey.

*6 Beginning the effective date of the permit and lasting until the average discharge rate has increased to 0.3083 MGD through the addition of sanitary waste water from a residential subdivision located in Los Alamos County. LANL shall notify EPA Region 6 and NMED in writing two weeks prior to the addition of residential sanitary waste water to the TA-46 treatment plant.

*7 Beginning after the average discharge rate has increased to 0.3083 MGD through the addition of sanitary waste water from a residential subdivision located in Los Alamos County and lasting until the average discharge rate has increased to 0.3183 MGD through addition of sanitary waste water from the new Research Park offices. The permittee shall notify EPA Region 6 and NMED at least two weeks prior to the addition of the Research Park waste water to the TA-46 treatment plant.

*8 Beginning after the average discharge rate has increased to 0.3183MGD through addition of sanitary waste water from the new Research Park offices and lasting through the expiration date of the permit.

OUTFALL 051 - Radioactive Liquid Waste Treatment Facility (TA-50)
Discharge Type: Intermittent
Latitude 35°51'54"N, Longitude 106°17'52"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge treated radioactive liquid waste to Mortandad Canyon, an unclassified tributary to the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM
pH (Standard Units) STORET: 00400	Report	Report

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
pH (Standard Units) STORET: 00400	1/Week	Grab

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report	Report	****	****
Chemical Oxygen Demand STORET: 00340	****	****	125	125
Total Suspended Solids STORET: 00530	****	****	30	45
Total Cadmium (*4) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Chromium (*4) STORET: 01034	****	****	1.34	2.68
Total Copper (*4) STORET: 01042	****	****	1.393	1.393
Total Iron (*4) STORET:10145	****	****	****	****
Total Lead (*4) STORET: 01051	****	****	423 ug/l	524 ug/l
Total Mercury (*4) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Zinc (*4) STORET: 01092	****	****	4.37	8.75
Total Toxic Organics (*2) STORET: 78141	****	****	1.0	1.0

Total Arsenic (*4) STORET: 01002	****	****	368 ug/l	368 ug/l
Total Aluminum (*4) STORET: 01105	****	****	5.0	5.0
Total Boron (*4) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*4) STORET: 01037	****	****	1.0	1.0
Total Selenium (*4) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*4) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*4) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*3)(*4) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l
Total Nickel (*4) STORET: 01067	****	****	Report	Report
Perchlorate STORET: 61209	****	****	Report	Report

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	Continuous	Record
Chemical Oxygen Demand STORET: 00340	1/Week	Grab
Total Suspended Solids STORET: 00530	1/Week	Grab
Total Cadmium STORET: 01027	1/Week	Grab
Total Chromium STORET: 01034	1/Week	Grab
Total Copper STORET: 01042	1/Week	Grab
Total Iron STORET: 10145	1/Week	Grab
Total Lead STORET: 01051	1/Week	Grab
Total Mercury STORET: 71900	1/Week	Grab
Total Zinc STORET: 01092	1/Week	Grab
Total Toxic Organics (*2) STORET: 78141	1/Month	Grab
Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab

Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*3) STORET: 82136	1/Year	Grab
Total Nickel STORET: 01067	1/Month	Grab
Perchlorate STORET: 61209	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)
Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following the final treatment and prior to or at the point of discharge from TA-50-1 treatment plant (Latitude 35°51'58.3"N, Longitude 106°17'48.5"W

NO DISCHARGE REPORTING
If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM
There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS
"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 The pH shall be within the range of 6.0 to 9.0 standard units at all times subject to the following continuous monitoring pH range excursion provisions.

pH RANGE EXCURSION PROVISIONS
Where a permittee continuously measures the pH of wastewater pursuant to a requirement or option in a National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to Section 402 of the Clean Water Act, the permittee shall maintain the pH of such wastewater within the range set forth in the permit, except excursions from the range are permitted, provided:

(a) The total time during which the pH values are outside the required range of pH values shall not exceed 446 minutes in any calendar month; and,

(b) No individual excursion from the range of pH values shall exceed 60 minutes.

For purposes of this section, an "excursion" is an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the permit.

*2 The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls

*3 When accelerator produced. The permittee shall monitor the influent to the TA-50 treatment plant once per year to determine sources of tritium.

*4 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

[COMMENT1] OUTFALL 05A055 - High Explosives Waste Water Treatment Plant (TA-16-1508)
Discharge Type: Intermittent
Latitude 35°50'49"N, Longitude 106°19'49"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge treated waste water from the high explosives waste water treatment facility to a tributary to Canon de Valle, an unclassified tributary of the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin

Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT2]
[COMMENT3]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT4]pH (Standard Units) STORET: 00400	1/Quarter	Grab

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
Chemical Oxygen Demand STORET: 00340	****	****	125	125
Total Suspended Solids STORET: 00530	****	****	30	45
Oil and Grease STORET: 00556	****	****	15	15
Total Toxic Organics (*1) STORET: 78141	****	****	1.0	1.0
Trinitrotoluene STORET: 81360	****	****	0.02	Report
Total RDX STORET: 81364	****	****	200 ug/l	660 ug/l
Total Cadmium (*3) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Chromium (*3) STORET: 01034	****	****	4.81	4.81
Total Copper (*3) STORET: 01042	****	****	1.329	1.329
Total Lead (*3) STORET: 01051	****	****	501 ug/l	501 ug/l
Total Mercury (*3)	****	****	0.77 ug/l	0.77 ug/l

STORET: 71900				
Total Zinc (*3)	****	****	78.5	78.5
STORET: 01092				
Total Arsenic (*3)	****	****	356 ug/l	356 ug/l
STORET: 01002				
Total Aluminum (*3)	****	****	5.0	5.0
STORET: 01105				
Total Boron (*3)	****	****	5.0	5.0
STORET: 01022				
Total Cobalt (*3)	****	****	1.0	1.0
STORET: 01037				
Total Selenium (*3)	****	****	5.0 ug/l	5.0 ug/l
STORET: 01147				
Total Vanadium (*3)	****	****	100 ug/l	100 ug/l
STORET: 01087				
Radium 226 + Radium 228 (*3)	****	****	30 pCi/l	30 pCi/l
STORET: 11503				
Tritium (*2)(*3)	****	****	20,000 pCi/l	20,000 pCi/l
STORET: 82136				
Perchlorate	****	****	Report	Report
STORET: 61209				

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	1/Quarter	Estimate
STORET: 50050		
Chemical Oxygen Demand	1/Quarter	Grab
STORET: 00340		
Total Suspended Solids	1/Quarter	Grab
STORET: 00530		
Oil and Grease	1/Quarter	Grab
STORET: 00556		
Total Toxic Organics	1/Quarter	Grab
STORET: 78141		
Trinitrotoluene	1/Quarter	Grab
STORET: 81360		
Total RDX	2/Month	Grab
STORET: 81364		
Total Cadmium	1/Year	Grab
STORET: 01027		
Total Chromium	1/Year	Grab
STORET: 01034		
Total Copper	1/Year	Grab
STORET: 01042		
Total Lead	1/Year	Grab
STORET: 01051		
Total Mercury	1/Year	Grab
STORET: 71900		
Total Zinc	1/Year	Grab
STORET: 01092		

Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*2) STORET: 82136	1/Year	Grab
Perchlorate STORET: 61209	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge (Latitude 35°50'49"N, Longitude 106°19'49"W).

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls.

*2 When accelerator produced.

*3 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

[COMMENT5] OUTFALL 05A097 High Explosives Waste Water (TA-11-25)
Discharge Type: Intermittent
Latitude 35°50'16.7"N, Longitude 106°19'25"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge waste water from the high explosives testing drop pad to an unclassified tributary to Water Canyon, a tributary of the Rio Grande, in segment number 20.6.4.114 of the Rio Grande basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT6]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT7]
[COMMENT8]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
Chemical Oxygen Demand STORET: 00340	****	****	125	125
Total Suspended Solids STORET: 00530	****	****	30	45
Oil and Grease STORET: 00556	****	****	15	15
Total Toxic Organics (*1) STORET: 78141	****	****	1.0	1.0
Trinitrotoluene STORET: 81360	****	****	0.02	Report
Total RDX STORET: 81364	****	****	200 ug/l	660 ug/l

Total Cadmium (*3) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Chromium (*3) STORET: 01034	****	****	4.7	4.7
Total Copper (*3) STORET: 01042	****	****	1.25	1.25
Total Lead (*3) STORET: 01051	****	****	469 ug/l	469 ug/l
Total Mercury (*3) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Zinc (*3) STORET: 01092	****	****	72.37	72.37
Total Arsenic (*3) STORET: 01002	****	****	340 ug/l	340 ug/l
Total Aluminum (*3) STORET: 01105	****	****	5.0	5.0
Total Boron (*3) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*3) STORET: 01037	****	****	1.0	1.0
Total Selenium (*3) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*3) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*3) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*2)(*3) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l
Perchlorate STORET: 61209	****	****	Report	Report

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/Quarter	Estimate
Chemical Oxygen Demand STORET: 00340	1/Quarter	Grab
Total Suspended Solids STORET: 00530	1/Quarter	Grab
Oil and Grease STORET: 00556	1/Quarter	Grab
Total Toxic Organics STORET: 78141	1/Quarter	Grab
Trinitrotoluene STORET: 81360	1/Quarter	Grab
Total RDX STORET: 81364	2/Month	Grab
Total Cadmium STORET: 01027	1/Year	Grab
Total Chromium STORET: 01034	1/Year	Grab

Total Copper STORET: 01042	1/Year	Grab
Total Lead STORET: 01051	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Zinc STORET: 01092	1/Year	Grab
Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*2) STORET: 82136	1/Year	Grab
Perchlorate STORET: 61209	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the discharge point (Latitude 35°50'16.7"N, Longitude 106°19'25"W).

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls.

*2 When accelerator produced.

*3 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

[COMMENT9] OUTFALLS 03A024, 03A130, 03A158, 03A181, 03A185 and 03A199
Discharge Type: Intermittent
Outfall 03A024: Latitude 35°52'19"N, Longitude 106°19'06"W (TA3-187)
Outfall 03A130: Latitude 35°50'20"N, Longitude 106°19'31"W (TA11-30)
Outfall 03A158: Latitude 35°52'30"N, Longitude 106°16'16"W (TA21-209)
Outfall 03A181: Latitude 35°51'50.8"N, Longitude 106°18'03"W (TA55-6)
Outfall 03A185: Latitude 35°50'00"N, Longitude 106°18'04"W (TA15-312)
Outfall 03A199: Latitude 35°52'30"N, Longitude 106°16'16"W (TA3-1837)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge cooling tower blowdown to Mortandad Canyon (Outfall 03A181), Sandia Canyon (Outfalls 03A024, and 03A199), Water Canyon (Outfall 03A130 and 03A185), and Los Alamos Canyon (Outfall 03A158), unclassified tributaries to the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT10]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT11]
[COMMENT12]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT13]pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****

Total Suspended Solids STORET: 00530	****	****	30	100
Total Residual Chlorine (*1) STORET: 50060	****	****	200 ug/l	500 ug/l
Total Residual Chlorine (*2)(*4) STORET: 50060	****	****	11 ug/l	11 ug/l
Total Phosphorus STORET:00665	****	****	20	40
Total Cadmium (*4) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Chromium (*4) STORET: 01034	****	****	4.36	4.36
Total Copper (*4) STORET: 01042	****	****	1.02	1.02
Total Lead (*4) STORET: 01051	****	****	380 ug/l	380 ug/l
Total Mercury (*4) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Zinc (*4) STORET: 01092	****	****	56.25	56.25
Total Arsenic (*4) STORET: 01002	****	****	296 ug/l	296 ug/l
Total Aluminum (*4) STORET: 01105	****	****	5.0	5.0
Total Boron (*4) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*4) STORET: 01037	****	****	1.0	1.0
Total Selenium (*4) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*4) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*4) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*3)(*4) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/Quarter	Estimate
Total Suspended Solids STORET: 00530	1/Quarter	Grab
Total Residual Chlorine STORET: 50060	1/Quarter	Grab
Total Phosphorous STORET: 00665	1/Quarter	Grab
Total Cadmium STORET: 01027	1/Year	Grab
Total Chromium STORET: 01034	1/Year	Grab

Total Copper STORET: 01042	1/Year	Grab
Total Lead STORET: 01051	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Zinc STORET: 01092	1/Year	Grab
Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*3) STORET: 82136	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEA SUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.

*2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.

*3 When accelerator produced.

*4 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

[COMMENT14] OUTFALLS 03A027, 03A028, 03A048, and 03A049

Discharge Type: Intermittent

03A027: Latitude 35°52'26"N, Longitude 106°19'07"W (TA3-285)

03A028: Latitude 35°49'58"N, Longitude 106°17'44"W (TA-15-202)

03A048: Latitude 35°52'11"N, Longitude 106°15'43"W (TA-53-62)

03A049: Latitude 35°52'13"N, Longitude 106°15'30"W (TA-53-64)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge cooling tower blowdown to Sandia Canyon (Outfall 03A027), Water Canyon (Outfall 03A028) and Los Alamos Canyon (Outfalls 03A048 and 03A049), unclassified tributaries to the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT15]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT16]
[COMMENT17]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT18]pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
Total Suspended Solids STORET: 00530	****	****	30	100
Total Residual Chlorine (*1) STORET: 50060	****	****	0.2	0.5
Total Residual Chlorine (*2)(*3) STORET: 50060	****	****	11 ug/l	11 ug/l
Total Phosphorus STORET:00665	****	****	20	40
Total Cadmium (*3) STORET: 01027	****	****	50 ug/l	50 ug/l

Total Chromium (*3) STORET: 01034	****	****	4.527	4.527
Total Copper (*3) STORET: 01042	****	****	1.123	1.123
Total Lead (*3) STORET: 01051	****	****	421 ug/l	421 ug/l
Total Mercury (*3) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Zinc (*3) STORET: 01092	****	****	63.47	63.47
Total Arsenic (*3) STORET: 01002	****	****	316 ug/l	316 ug/l
Total Aluminum (*3) STORET: 01105	****	****	5.0	5.0
Total Boron (*3) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*3) STORET: 01037	****	****	1.0	1.0
Total Selenium (*3) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*3) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*3) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*4)(*3) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/Quarter	Estimate
Total Suspended Solids STORET: 00530	1/Quarter	Grab
Total Residual Chlorine STORET: 50060	1/Quarter	Grab
Total Phosphorous STORET: 00665	1/Quarter	Grab
Total Cadmium STORET: 01027	1/Year	Grab
Total Chromium STORET: 01034	1/Year	Grab
Total Copper STORET: 01042	1/Year	Grab
Total Copper (*5) STORET: 01042	1/Quarter	Grab
Total Lead STORET: 01051	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Zinc STORET: 01092	1/Year	Grab

Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*4) STORET: 82136	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the discharge point.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.

*2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.

*3 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

*4 When accelerator produced.

*5 At Outfall 03A048 only. At all other outfalls Total Copper is required to be monitored once per year.

[COMMENT19] OUTFALLS 03A021, 03A022, and 03A113

Discharge Type: Intermittent

Outfall 03A021: Latitude 35°52'40"N, Longitude 106°19'09"W (TA3-29)

Outfall 03A022: Latitude 35°52'14"N, Longitude 106°18'58"W (TA3-2274)

Outfall 03A113: Latitude 35°52'04"N, Longitude 106°15'42"W (TA-53-293, 294, 952, and 1032)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge cooling tower blowdown to Mortandad Canyon (Outfalls 03A021 and 03A022) and Sandia Canyon (Outfall 03A113), unclassified tributaries of the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT20]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT21]
[COMMENT22]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT23]pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
Total Suspended Solids STORET: 00530	****	****	30	100
Total Residual Chlorine (*1) STORET: 50060	****	****	0.2	0.5
Total Residual Chlorine (*2)(*4) STORET: 50060	****	****	11 ug/l	11 ug/l
Total Phosphorus	****	****	20	40

STORET:00665				
Total Cadmium (*4)	****	****	50 ug/l	50 ug/l
STORET: 01027				
Total Chromium (*4)	****	****	4.7	4.7
STORET: 01034				
Total Copper (*4)	****	****	1.25	1.25
STORET: 01042				
Total Lead (*4)	****	****	469 ug/l	469 ug/l
STORET: 01051				
Total Mercury (*4)	****	****	0.77 ug/l	0.77 ug/l
STORET: 71900				
Total Zinc (*4)	****	****	72.37	72.37
STORET: 01092				
Total Arsenic (*4)	****	****	340 ug/l	340 ug/l
STORET: 01002				
Total Aluminum (*4)	****	****	5.0	5.0
STORET: 01105				
Total Boron (*4)	****	****	5.0	5.0
STORET: 01022				
Total Cobalt (*4)	****	****	1.0	1.0
STORET: 01037				
Total Selenium (*4)	****	****	5.0 ug/l	5.0 ug/l
STORET: 01147				
Total Vanadium (*4)	****	****	100 ug/l	100 ug/l
STORET: 01087				
Radium 226 + Radium 228 (*4)	****	****	30 pCi/l	30 pCi/l
STORET: 11503				
Tritium (*3)	****	****	20,000 pCi/l	20,000 pCi/l
STORET: 82136				

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	1/Quarter	Estimate
STORET: 50050		
Total Suspended Solids	1/Quarter	Grab
STORET: 00530		
Total Residual Chlorine	1/Quarter	Grab
STORET: 50060		
Total Phosphorous	1/Quarter	Grab
STORET: 00665		
Total Cadmium	1/Year	Grab
STORET: 01027		
Total Chromium	1/Year	Grab
STORET: 01034		
Total Copper	1/Year	Grab
STORET: 01042		
Total Lead	1/Year	Grab
STORET: 01051		
Total Mercury	1/Year	Grab
STORET: 71900		
Total Zinc	1/Year	Grab

STORET: 01092		
Total Arsenic	1/Year	Grab
STORET: 01002		
Total Aluminum	1/Year	Grab
STORET: 01105		
Total Boron	1/Year	Grab
STORET: 01022		
Total Cobalt	1/Year	Grab
STORET: 01037		
Total Selenium	1/Year	Grab
STORET: 01147		
Total Vanadium	1/Year	Grab
STORET: 01087		
Radium 226 + Radium 228	1/Year	Grab
STORET: 11503		
Tritium (*3)	1/Year	Grab
STORET: 82136		

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)
Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING
If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM
There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS
"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.

*2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.

*3 When accelerator produced.

*4 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that

individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

OUTFALL 03A047 (TA53-60)
Discharge Type: Intermittent
Latitude 35°52'10"N, Longitude 106°15'58"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge cooling tower blowdown to Los Alamos Canyon, an unclassified tributary of the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT24]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS		
	QUALITY (UNITS AS STATED)		
	MINIMUM	MAXIMUM	[COMMENT25]
[COMMENT26]pH (Standard Units) STORET: 00400	6.0	9.0	

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT27]pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
Total Suspended Solids STORET: 00530	****	****	30	100
Total Residual Chlorine (*1) STORET: 50060	****	****	0.2	0.5
Total Residual Chlorine (*2) (*4) STORET: 50060	****	****	11 ug/l	11 ug/l
Total Phosphorus STORET:00665	****	****	20	40
Total Cadmium (*4) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Chromium (*4) STORET: 01034	****	****	4.81	4.81

Total Copper (*4) STORET: 01042	****	****	1.329	1.329
Total Lead (*4) STORET: 01051	****	****	501 ug/l	501 ug/l
Total Mercury (*4) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Zinc (*4) STORET: 01092	****	****	78.5	78.5
Total Arsenic (*4) STORET: 01002	****	****	356 ug/l	356 ug/l
Total Aluminum (*4) STORET: 01105	****	****	5.0	5.0
Total Boron (*4) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*4) STORET: 01037	****	****	1.0	1.0
Total Selenium (*4) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*4) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*4) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*3) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/Quarter	Estimate
Total Suspended Solids STORET: 00530	1/Quarter	Grab
Total Residual Chlorine STORET: 50060	1/Quarter	Grab
Total Phosphorous STORET: 00665	1/Quarter	Grab
Total Cadmium STORET: 01027	1/Year	Grab
Total Chromium STORET: 01034	1/Year	Grab
Total Copper STORET: 01042	1/Year	Grab
Total Lead STORET: 01051	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Zinc STORET: 01092	1/Year	Grab
Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab

Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*3) STORET: 82136	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the discharge point (Latitude 35°52'10"N, Longitude 106°15'58"W).

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.

*2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.

*3 When accelerator produced.

*4 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

OUTFALL 03A160 (TA-35-124)
Discharge Type: Intermittent
Latitude 35°51'47"N, Longitude 106°17'45"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge cooling tower blowdown to Ten Site Canyon thence to Mortandad Canyon an unclassified tributary of the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT28]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT29]
[COMMENT30]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT31]pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow STORET: 50050	Report MGD	Report MGD	****	****
Total Suspended Solids STORET: 00530	****	****	30	100
Total Residual Chlorine (*1) STORET: 50060	****	****	0.2	0.5
Total Residual Chlorine (*2) STORET: 50060	****	****	11 ug/l	11 ug/l
Total Phosphorus STORET:00665	****	****	20	40
Total Cadmium (*3) STORET: 01027	****	****	50 ug/l	50 ug/l
Total Chromium (*3) STORET: 01034	****	****	5.278	5.278

Total Copper (*3) STORET: 01042	****	****	1.775	1.775
Total Lead (*3) STORET: 01051	****	****	658 ug/l	658 ug/l
Total Mercury (*3) STORET: 71900	****	****	0.77 ug/l	0.77 ug/l
Total Zinc (*3) STORET: 01092	****	****	113	113
Total Arsenic (*3) STORET: 01002	****	****	444 ug/l	444 ug/l
Total Aluminum (*3) STORET: 01105	****	****	5.0	5.0
Total Boron (*3) STORET: 01022	****	****	5.0	5.0
Total Cobalt (*3) STORET: 01037	****	****	1.0	1.0
Total Selenium (*3) STORET: 01147	****	****	5.0 ug/l	5.0 ug/l
Total Vanadium (*3) STORET: 01087	****	****	100 ug/l	100 ug/l
Radium 226 + Radium 228 (*3) STORET: 11503	****	****	30 pCi/l	30 pCi/l
Tritium (*3)(*4) STORET: 82136	****	****	20,000 pCi/l	20,000 pCi/l

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/Quarter	Estimate
Total Suspended Solids STORET: 00530	1/Quarter	Grab
Total Residual Chlorine STORET: 50060	1/Quarter	Grab
Total Phosphorous STORET: 00665	1/Quarter	Grab
Total Cadmium STORET: 01027	1/Year	Grab
Total Chromium STORET: 01034	1/Year	Grab
Total Copper STORET: 01042	1/Year	Grab
Total Lead STORET: 01051	1/Year	Grab
Total Mercury STORET: 71900	1/Year	Grab
Total Zinc STORET: 01092	1/Year	Grab
Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab

Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*1) STORET: 82136	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge (Latitude 35°51'47"N, Longitude 106°17'45"W).

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

*1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.

*2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.

*3 When accelerator produced.

*4 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

OUTFALL 02A129 (TA-21-357)
Discharge Type: Intermittent
Latitude 35°52'31"N, Longitude 106°16'29"W

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge boiler blowdown, water softener waste water, and once through cooling water to Los Alamos Canyon, an unclassified tributary of the Rio Grande, in segment number 20.6.4.114 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

[COMMENT32]

pH RANGE

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS	
	QUALITY (UNITS AS STATED)	
	MINIMUM	MAXIMUM [COMMENT33]
[COMMENT34]pH (Standard Units) STORET: 00400	6.0	9.0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
[COMMENT35]pH (Standard Units) STORET: 00400	1/Quarter	Grab

CHEMICAL/PHYSICAL/BIOCHEMICAL

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING (LBS/DAY UNLESS STATED)		QUALITY/CONCENTRATION (mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow (MGD) STORET: 50050	Report	Report	****	****
Total Suspended Solids STORET: 00530	****	****	30	100
Total Iron STORET: 10145	****	****	10	40
Total Copper (*2) STORET: 01042	****	****	1.39	1.39
Total Phosphorus STORET: 00665	****	****	20	40
Sulfite (as SO_3) STORET: 00740	****	****	35	70
Total Chromium (*2)	****	****	4.85	4.85

STORET: 01034				
Total Cadmium (*2)	****	****	50 ug/l	50 ug/l
STORET: 01027				
Total Lead (*2)	****	****	513 ug/l	513 ug/l
STORET: 01051				
Total Mercury (*2)	****	****	0.77 ug/l	0.77 ug/l
STORET: 71900				
Total Zinc (*2)	****	****	81.0	81.0
STORET: 01092				
Total Arsenic (*2)	****	****	362 ug/l	362 ug/l
STORET: 01002				
Total Aluminum (*2)	****	****	5.0	5.0
STORET: 01105				
Total Boron (*2)	****	****	5.0	5.0
STORET: 01022				
Total Cobalt (*2)	****	****	1.0	1.0
STORET: 01037				
Total Selenium (*2)	****	****	5.0 ug/l	5.0 ug/l
STORET: 01147				
Total Vanadium (*2)	****	****	100 ug/l	100 ug/l
STORET: 01087				
Radium 226 + Radium 228 (*2)	****	****	30 pCi/l	30 pCi/l
STORET: 11503				
Tritium (*1)(*2)	****	****	20,000 pCi/l	20,000 pCi/l
STORET: 82136				

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	1/Quarter	Estimate
STORET: 50050		
Total Suspended Solids	1/Quarter	Grab
STORET: 00530		
Total Iron	1/Quarter	Grab
STORET: 10145		
Total Phosphorous	1/Quarter	Grab
STORET: 00665		
Sulfite (as SO_3)	1/Quarter	Grab
STORET: 00740		
Total Cadmium	1/Year	Grab
STORET: 01027		
Total Chromium	1/Year	Grab
STORET: 01034		
Total Copper	1/Year	Grab
STORET: 01042		
Total Lead	1/Year	Grab
STORET: 01051		
Total Mercury	1/Year	Grab
STORET: 71900		
Total Zinc	1/Year	Grab
STORET: 01092		

Total Arsenic STORET: 01002	1/Year	Grab
Total Aluminum STORET: 01105	1/Year	Grab
Total Boron STORET: 01022	1/Year	Grab
Total Cobalt STORET: 01037	1/Year	Grab
Total Selenium STORET: 01147	1/Year	Grab
Total Vanadium STORET: 01087	1/Year	Grab
Radium 226 + Radium 228 STORET: 11503	1/Year	Grab
Tritium (*1) STORET: 82136	1/Year	Grab

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Following final treatment and prior to or at the discharge point.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

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*1 When accelerator produced.

*2 If any individual analytical test result is less than the minimum quantification level listed at Part II.A of this permit, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements

[COMMENT36]B. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

NONE

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. REPORTING OF MONITORING RESULTS (MAJOR DISCHARGERS)

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted monthly.

1. Reporting periods shall end on the last day of the month.

2. The permittee is required to submit regular monthly reports as described above postmarked no later than the 15th day of the month following each reporting period.

[COMMENT37][COMMENT38]

[COMMENT39] PART II - OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL (MQL)

If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

	MQL (µg/L)
Aluminum	100
Barium	100
Boron	100
Residual Chlorine (Total)	100
Cobalt	50
Nitrate as N	100
Vanadium	50
Antimony (Total)	60
Arsenic (Total)	10
Beryllium (Total)	5
Cadmium (Total)	1
Chromium (Total)	10
Chromium (3+)	10
Chromium (6+)	10
Copper (Total)	10
Lead (Total)	5
Mercury (Total)	0.2
Nickel (Total)	5
Selenium (Total)	5
Silver (Total)	2
Thallium (Total)	10
Zinc (Total)	20
Cyanide (Total)	20
Cyanide (Amenable)	20
Chlordane	0.2

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40CFR136. For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to the EPA Region 6 NPDES Permits Branch (6WQ-P) a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$MQL = 3.3 \times MDL$$

Upon written approval by the EPA Region 6 NPDES Permits Branch (6WQ-P), the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

B. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas and NMED, within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

Arsenic, Aluminum, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Selenium, Radium, Tritium, Vanadium, or Zinc.

C. COMPOSITE SAMPLING (24-HOUR)

1. STANDARD PROVISIONS

Unless otherwise specified in this permit, the term "24-hour composite sample" means a sample consisting of a minimum of three (3) aliquots of effluent collected at regular intervals over a normal 24-hour operating period and combined in proportion to flow or a sample continuously collected in proportion to flow over a normal 24-hour operating period.

2. VOLATILE COMPOUNDS

For the "24-hour composite" sampling of volatile compounds using EPA Methods 601, 602, 603, 624, 1624, or any other 40CFR136 method approved after the effective date of the permit, the permittee shall manually collect four (4) aliquots (grab samples) in clean zero head-space containers at regular intervals during the actual hours of discharge during the 24-hour sampling period using sample collection, preservation, and handling techniques specified in the test method. These aliquots must be combined in the laboratory to represent the composite sample of the discharge. One of the following alternative methods shall be used to composite these aliquots.

a. Each aliquot is poured into a syringe. The plunger is added, and the volume in the syringe is adjusted to 1-1/4 ml. Each aliquot (1-1/4 ml.) is injected into the purging chamber of the purge and trap system. After four (4) injections (total 5 ml.), the chamber is purged. Only one analysis or run is required since the aliquots are combined prior to analysis.

b. Chill the four (4) aliquots to 4 Degrees Centigrade. These aliquots must be of equal volume. Carefully pour the contents of each of the four aliquots into a 250-500 ml. flask which is chilled in a wet ice bath. Stir the mixture gently with a clean glass rod while in the ice bath. Carefully fill two (2) or more clean 40 ml. zero head-space vials from the flask and dispose of the remainder of the mixture. Analyze one of the aliquots to determine the concentration of the composite sample. The remaining aliquot(s) are replicate composite samples that can be analyzed if desired or necessary.

c. Alternative sample compositing methods may be used following written approval by EPA Region 6.

The individual samples resulting from application of these compositing methods shall be analyzed following the procedures specified for the selected test method. The resulting analysis shall be reported as the daily composite concentration.

As an option to the above compositing methods, the permittee may manually collect four (4) aliquots (grab samples) in clean zero head-space containers at regular intervals during the actual hours of discharge during the 24-hour sampling period using sample collection, preservation, and handling techniques specified in the test method. A separate analysis shall be conducted for each discrete grab sample following the approved test methods. The determination of daily composite concentration shall be the arithmetic average (weighted by flow) of all grab samples collected during the 24-hour sampling period.

D. CYANIDE EFFLUENT TEST PROCEDURES

To comply with the sampling and analysis requirements for total cyanide and cyanide amenable to chlorination, the permittee shall use an approved test procedure at 40CFR136. If the analysis of cyanide amenable to chlorination is subject to matrix interferences, the weak acid dissociable cyanide method (Method 4500 CN I - Standard Methods, latest edition approved in 40CFR136) may be substituted for this parameter. The permittee may use ion chromatographic separation - amperometric detection (IC method) as a substitute for the colorimetric detection steps in any of the above cyanide methods. No other modifications of the above methods are authorized by this provision unless such modifications are approved in writing by the permitting authority.

E. OIL AND GREASE ALTERNATIVE TEST PROCEDURE: INTERIM LIMITED USE APPROVAL

Proposed Method 1664 [Federal Register, Vol. 61, No. 15, January 23, 1996, page 1730] may be used as an oil and grease alternative test procedure for NPDES permit compliance monitoring purposes. This approval shall expire at the time of the publication in the Federal Register of the final rule

governing the use of Method 1664. This approval includes all of the analytical options within Method 1664 provided that the equivalency demonstration is performed and all performance specifications are met at each outfall.

F. The University of California (UC) and the U.S. Department of Energy (DOE) are co-permittees for the Los Alamos National Laboratory (LANL) NPDES permit.

EPA may take enforcement actions as appropriate against either UC or DOE or both.

G. Upon receipt of analytical results, any limited parameter found to be out of compliance with this permit shall be resampled for that noncompliant parameter within seven (7) days. This resampling schedule for noncompliant effluent limits shall be repeated until analytical results indicate the limited parameter is in compliance with this permit.

H. This permit may be reopened and modified or revoked and reissued to reflect any applicable changes to the New Mexico Water Quality Standards.

I. TEST METHODS

The following methods may be used for analysis under this permit:

Liquid Scintillation Counting: EPA Method ANC335, R-1

Gamma Spectroscopy: EPA Methods 904.0 and 903.1

Nitroaromatics and Nitramines by High Performance Liquids Chromatography: SW846 Method 8330

Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry: EPA Method 200.7

Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry: EPA Method 200.8

Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry: EPA Method 200.9

Determination of Inorganic Anions by Ion Chromatography: EPA Method 300.0

Microwave Digestion: EPA Method 200.2

PART III - STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. INTRODUCTION

In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the "Act") as well as ALL applicable regulations.

2. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. TOXIC POLLUTANTS

a. Notwithstanding Part III.A.5, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.

5. PERMIT FLEXIBILITY

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

7. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

8. CRIMINAL AND CIVIL LIABILITY

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.

9. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any

responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

B. PROPER OPERATION AND MAINTENANCE

1. NEED TO HALT OR REDUCE NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. PROPER OPERATION AND MAINTENANCE

a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. BYPASS OF TREATMENT FACILITIES

11. SEVERABILITY

a. BYPASS NOT EXCEEDING LIMITATIONS

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.b. and 4.c.

b. NOTICE

(1) ANTICIPATED BYPASS

If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) UNANTICIPATED BYPASS

The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part III.D.7.

c. PROHIBITION OF BYPASS

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

(c) The permittee submitted notices as required by Part III.B.4.b.

(2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines

that it will meet the three conditions listed at Part III.B.4.c(1).

5. UPSET CONDITIONS

a. EFFECT OF AN UPSET

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

b. CONDITIONS NECESSARY FOR A DEMONSTRATION OF UPSET

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required by Part III.D.7; and,

(4) The permittee complied with any remedial measures required by Part III.B.2.

c. BURDEN OF PROOF

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. REMOVED SUBSTANCES

Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. PERCENT REMOVAL (PUBLICLY OWNED TREATMENT WORKS)

For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

C. MONITORING AND RECORDS

1. INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. REPRESENTATIVE SAMPLING

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. RETENTION OF RECORDS

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. RECORD CONTENTS

Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) and time(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

5. MONITORING PROCEDURES

c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

6. FLOW MEASUREMENTS

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

D. REPORTING REQUIREMENTS

1. PLANNED CHANGES

a. INDUSTRIAL PERMITS

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part III.D.10.a.

b. MUNICIPAL PERMITS

a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.

b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants) must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. ANTICIPATED NONCOMPLIANCE

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. TRANSFERS

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. DISCHARGE MONITORING REPORTS AND OTHER REPORTS

Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. The permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA at the address below. Duplicate copies of DMR's and all other reports shall be submitted to the appropriate State agency(ies) at the following address(es):

EPA:
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

New Mexico:
Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
1190 Saint Francis Drive
Santa Fe, NM 87502

Oklahoma (Industrial Permits Only):
Director
Oklahoma Department of Environmental Quality
1000 NE 10th Street
Oklahoma City, OK 73117-1212

Louisiana:
Assistant Secretary for Water
Water Pollution Control Division
Louisiana Department of Environmental Quality
P.O. Box 82215
Baton Rouge, LA 70884-2215

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

6. AVERAGING OF MEASUREMENTS

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

7. TWENTY-FOUR HOUR REPORTING

a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:

(1) A description of the noncompliance and its cause;

(2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,

(3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. The following shall be included as information which must be reported within 24 hours:

5. ADDITIONAL MONITORING BY THE PERMITTEE

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Any upset which exceeds any effluent limitation in the permit; and,

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II (industrial permits only) of the permit to be reported within 24 hours.

c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

8. OTHER NONCOMPLIANCE

The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 and Part I.B (for industrial permits only) at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7.

9. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

10. CHANGES IN DISCHARGES OF TOXIC SUBSTANCES

All existing manufacturing, commercial, mining, and silvacultural permittees shall notify the Director as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 µg/L);
(2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
(4) The level established by the Director.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/L);
(2) One milligram per liter (1 mg/L) for antimony;
(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
(4) The level established by the Director.

11. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Director shall be signed and certified.

a. ALL PERMIT APPLICATIONS shall be signed as follows:

(1) FOR A CORPORATION - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,

(b) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP - by a general partner or the proprietor, respectively.

(3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(a) The chief executive officer of the agency, or

(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

b. ALL REPORTS required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,

(3) The written authorization is submitted to the Director.

c. CERTIFICATION

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information

submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. AVAILABILITY OF REPORTS

Except for applications, effluent data, permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. CRIMINAL

a. NEGLIGENT VIOLATIONS

The Act provides that any person who negligently violates permit conditions implementing Section 301, 302, 306, 307, The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309.c.4 of the Clean Water Act)

2. CIVIL PENALTIES

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed $27,500 per day for each violation.

3. ADMINISTRATIVE PENALTIES

308, 318, or 405 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

b. KNOWING VIOLATIONS

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. KNOWING ENDANGERMENT

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both.

d. FALSE STATEMENTS

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. CLASS I PENALTY

Not to exceed $11,000 per violation nor shall the maximum amount exceed $27,500.

b. CLASS II PENALTY

Not to exceed $11,000 per day for each day during which the violation continues nor shall the maximum amount exceed $137,500.

F. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

1. ACT means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.

2. ADMINISTRATOR means the Administrator of the U.S. Environmental Protection Agency.

3. APPLICABLE EFFLUENT STANDARDS AND LIMITATIONS means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and prohibitions, and pretreatment standards.

4. APPLICABLE WATER QUALITY STANDARDS means all water quality standards to which a discharge is subject under the Act.

5. BYPASS means the intentional diversion of waste streams from any portion of a treatment facility.

6. DAILY DISCHARGE means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.

7. DAILY MAXIMUM discharge limitation means the highest allowable "daily discharge" during the calendar month.

8. DIRECTOR means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.

9. ENVIRONMENTAL PROTECTION AGENCY means the U.S. Environmental Protection Agency.

10. GRAB SAMPLE means an individual sample collected in less than 15 minutes.

11. INDUSTRIAL USER means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.

12. MONTHLY AVERAGE (also known as DAILY AVERAGE) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =

$$\frac{C_1F_1 + C_2F_2 + ... + C_nF_n}{F_1 + F_2 + ... + F_n}$$

13. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Act.

14. SEVERE PROPERTY DAMAGE means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

15. SEWAGE SLUDGE means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff, that are discharged to or otherwise enter a publicly owned treatment works.

16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.

17. UPSET means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed

treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

18. FOR FECAL COLIFORM BACTERIA, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

19. The term "MGD" shall mean million gallons per day.

20. The term "mg/L" shall mean milligrams per liter or parts per million (ppm).

21. The term "µg/L" shall mean micrograms per liter or parts per billion (ppb).

22. MUNICIPAL TERMS

    a. 7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

    b. 30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

    c. 24-HOUR COMPOSITE SAMPLE consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.

    d. 12-HOUR COMPOSITE SAMPLE consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.

    e. 6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.

    f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.

SEWAGE SLUDGE REQUIREMENTS

INSTRUCTIONS TO PERMITTEES

Select only those Elements and Sections which apply to your sludge reuse or disposal practice. **The sludge conditions do not apply to wastewater treatment lagoons where sludge is not wasted for final reuse/disposal. If the sludge is not removed, the permittee shall indicate on the DMR "No Discharge".**

Although reporting is not required at this time, this permit may be modified or revoked and reissued to require an annual DMR.

ELEMENT 1 - LAND APPLICATION

SECTION I: Page 2 - Requirements Applying to All Sewage Sludge Land Application

SECTION II: Page 5 - Requirements Specific to Bulk Sewage Sludge for Application to the Land Meeting Class A or B Pathogen Reduction and the Cumulative Loading Rates in Table 2, or Class B Pathogen Reduction and the Pollutant Concentrations in Table 3

SECTION III: Page 8 - Requirements Specific to Bulk Sewage Sludge Meeting Pollutant Concentrations in Table 3 and Class A Pathogen Reduction Requirements

SECTION IV: Page 9 - Requirements Specific to Sludge Sold or Given Away in a Bag or Other Container for Application to the Land that does not Meet the Pollutant Concentrations in Table 3

ELEMENT 2 - SURFACE DISPOSAL

SECTION I: Page 10 - Requirements Applying to All Sewage Sludge Surface Disposal

SECTION II: Page 14 - Requirements Specific to Surface Disposal Sites Without a Liner and Leachate Collection System

SECTION III: Page 15 - Requirements Specific to Surface Disposal Sites With a Liner and Leachate Collection System

ELEMENT 3 - MUNICIPAL SOLID WASTE LANDFILL DISPOSAL

ELEMENT 1 - LAND APPLICATION

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present in the sludge.

2. If requirements for sludge management practices or pollutant criteria become more stringent than the sludge pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated at Section 405(d)(2) of the Clean Water Act. If new limits for Molybdenum are promulgated prior to permit expiration, then those limits shall become directly enforceable.

3. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

4. The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).

B. Testing Requirements

1. Sewage sludge shall not be applied to the land if the concentration of the pollutants exceed the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Element 1, Section I.C.

TABLE 1

Pollutant	Ceiling Concentration (milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

2. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by either the Class A or Class B pathogen requirements. Sewage sludge that is applied to a lawn or home garden shall be treated by the

Class A pathogen requirements. Sewage sludge that is sold or given away in a bag shall be treated by Class A pathogen requirements.

a. Six alternatives are available to demonstrate compliance with Class A sewage sludge. All 6 options require either the density of fecal coliform in the sewage sludge be less than 1000 Most Probable Number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container for application to the land. Below are the additional requirements necessary to meet the definition of a Class A sludge. Alternatives 5 and 6 are not authorized to demonstrate compliance with Class A sewage sludge in Texas permits.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at a specific value for a period of time. See 503.32(a)(3)(ii) for specific information.

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 and shall remain above 12 for 72 hours.

The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12.

At the end of the 72 hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(ii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(iii) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sludge is prepared for sale or give away in a bag or other container for application to the land.

The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land.

Alternative 5 - Sewage sludge shall be treated by one of the Processes to Further Reduce Pathogens (PFRP) described in 503 Appendix B. PFRPs include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 - Sewage sludge shall be treated by a process that is equivalent to a Process to Further Reduce Pathogens, if individually approved by the Pathogen Equivalency Committee representing the EPA.

b. Three alternatives are available to demonstrate compliance with Class B sewage sludge. Alternatives 2 and 3 are not authorized to demonstrate compliance with Class B sewage sludge in Texas permits.

Alternative 1 - (i) Seven random samples of the sewage sludge shall be collected for one monitoring episode at the time the sewage sludge is used or disposed.

(ii) The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge shall be treated in one of the Processes to significantly Reduce Pathogens described in 503 Appendix B.

Alternative 3 - Sewage sludge shall be treated in a process that is equivalent to a PSRP, if individually approved by the Pathogen Equivalency Committee representing the EPA.

In addition, the following site restrictions must be met if Class B sludge is land applied:

i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.

vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.

viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

3. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following alternatives 1 through 10 for Vector Attraction Reduction. If bulk sewage sludge is applied to a home garden, or bagged sewage sludge is applied to the land, only alternative 1 through alternative 8 shall be used.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be higher than 45 degrees Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 - (i) Sewage sludge shall be injected below the surface of the land.

(ii) No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

(iii) When sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10 - (i) Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

(ii) When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

All other pollutants shall be monitored at the frequency shown below:

Amount of sewage sludge* (metric tons per 365 day period)	Frequency
0 ≤ Sludge < 290	Once/Year
290 ≤ Sludge < 1,500	Once/Quarter
1,500 ≤ Sludge < 15,000	Once/Two Months
15,000 ≤ Sludge	Once/Month

* Either the amount of bulk sewage sludge applied to the land or the amount of sewage sludge received by a person who prepares sewage sludge that is sold or given away in a bag or other container for application to the land (dry weight basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 40 CFR 503.8(b).

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below those listed in Table 3 found in Element I, Section III, the following conditions apply:

1. Pollutant Limits

Table 2
Cumulative Pollutant Loading Rate

Pollutant	(kilograms per hectare)
Arsenic	41
Cadmium	39
Chromium	3000
Copper	1500
Lead	300
Mercury	17
Molybdenum	Monitor
Nickel	420
Selenium	100
Zinc	2800

2. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, or lawn or home garden shall be treated by either Class A or Class B pathogen reduction requirements as defined above in Element 1, Section I.B.3.

3. Management Practices

a. Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters of the U.S., as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to section 404 of the CWA.

b. Bulk sewage sludge shall not be applied within 10 meters of a water of the U.S.

c. Bulk sewage sludge shall be applied at or below the agronomic rate in accordance with recommendations from the following references:

i. STANDARDS 1992, Standards, Engineering Practices and Data, 39th Edition (1992) American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085-9659.

ii. National Engineering Handbook Part 651, Agricultural Waste Management Field Handbook (1992), P.O. Box 2890, Washington, D.C. 20013.

iii. Recommendations of local extension services or Soil Conservation Services.

iv. Recommendations of a major University's Agronomic Department.

d. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:

i. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.

ii. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet.

iii. The annual whole sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Element I, Section III below are met.

4. Notification requirements

a. If bulk sewage sludge is applied to land in a State other than the State in which the sludge is prepared, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:

i. The location, by either street address or latitude and longitude, of each land application site.

ii. The approximate time period bulk sewage sludge will be applied to the site.

iii. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who prepares the bulk sewage sludge.

iv. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.

b. The permittee shall give 60 days prior notice to the Director of any change planned in the sewage sludge practice. Any change shall include any planned physical alterations or additions to the permitted treatment works, changes in the permittee's sludge use or disposal practice, and also alterations, additions, or deletions of disposal sites. These changes may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional disposal sites not reported during the permit application process or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR 122.62(a)(1).

c. The permittee shall provide the location of all existing sludge disposal/use sites to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely effect a National Historic Site, cease use of such area.

5. Recordkeeping Requirements - The sludge documents will be retained on site at the same location as other NPDES records.

The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information for five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for recordkeeping found in 40 CFR 503.17 for persons who land apply.

a. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 3 found in Element I, Section III and the applicable pollutant concentration criteria (mg/Kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (kg/ha) listed in Table 2 above.

b. A description of how the pathogen reduction requirements are met (including site restrictions for Class B sludges, if applicable).

c. A description of how the vector attraction reduction requirements are met.

d. A description of how the management practices listed above in Section II.3 are being met.

e. The recommended agronomic loading rate from the references listed in Section II.3.c. above, as well as the actual agronomic loading rate shall be retained.

f. A description of how the site restrictions in 40 CFR Part 503.32(b)(5) are met for each site on which Class B bulk sewage sludge is applied.

g. The following certification statement:

"I certify, under penalty of law, that the management practices in §503.14 have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the manageme

nt practices have been met. I am aware that there are significant penalties for false certificati on including fine and imprison ment."

h. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 40 CFR 503.17(a)(4)(i)(B) or 40 CFR Part 503.17(a)(5)(i)(B) as applicable to the permittees sludge treatment activities.

i. The permittee shall maintain information that describes future geographical areas where sludge may be land applied.

j. The permittee shall maintain information identifying site selection criteria regarding land application sites not identified at the time of permit application submission.

k. The permittee shall maintain information regarding how future land application sites will be managed.

The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for recordkeeping found in 40 CFR 503.17 for persons who land apply.

a. The location, by either street address or latitude and longitude, of each site on which sludge is applied.

b. The number of hectares in each site on which bulk sludge is applied.

c. The date and time sludge is applied to each site.

d. The cumulative amount of each pollutant in kilograms/hectare listed in Table 2 applied to each site.

e. The total amount of sludge applied to each site in metric tons.

f. The following certification statement:

"I certify, under penalty of law, that the requirements to obtain information in §503.12(e)(2) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements to obtain information have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

g. A description of how the requirements to obtain information in §503.12(e)(2) are met.

6. Reporting Requirements - None.

SECTION III. REQUIREMENTS SPECIFIC TO BULK OR BAGGED SEWAGE SLUDGE MEETING POLLUTANT CONCENTRATIONS IN TABLE 3 AND CLASS A PATHOGEN REDUCTION REQUIREMENTS

For those permittees with sludge that contains concentrations of pollutants below those pollutant limits listed in Table 3 for bulk or bagged (containerized) sewage sludge and also meet the Class A pathogen reduction requirements, the following conditions apply (Note: All bagged sewage sludge must be treated by Class A pathogen reduction requirements.):

1. Pollutant limits - The concentration of the pollutants in the municipal sewage sludge is at or below the values listed.

Table 3

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Monitor
Nickel	420
Selenium	36
Zinc	2800

* Dry weight basis

2. Pathogen Control

   All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, or lawn or home garden shall be treated by the Class A pathogen reduction requirements as defined above in Element I, Section I.B.3. All bagged sewage sludge must be treated by Class A pathogen reduction requirements.

3. Management Practices - None.

4. Notification Requirements - None.

5. Recordkeeping Requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.

   a. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 3 and the applicable pollutant concentration criteria listed in Table 3.

   b. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 503.17(a)(1)(ii) or 503.17(a)(3)(i)(B), whichever applies to the permittees sludge treatment activities.

   c. A description of how the Class A pathogen reduction requirements are met.

   d. A description of how the vector attraction reduction requirements are met.

6. Reporting Requirements - None.

SECTION IV. REQUIREMENTS SPECIFIC TO SLUDGE SOLD OR GIVEN AWAY IN A BAG OR OTHER CONTAINER FOR APPLICATION TO THE LAND THAT DOES NOT MEET THE MINIMUM POLLUTANT CONCENTRATIONS

1. Pollutant Limits

Table 4

Pollutant	Annual Pollutant Loading Rate (kilograms per hectare per 365 day period)
Arsenic	2
Cadmium	1.9
Chromium	150
Copper	75
Lead	15
Mercury	0.85
Molybdenum	Monitor
Nickel	21
Selenium	5
Zinc	140

2. Pathogen Control

All sewage sludge that is sold or given away in a bag or other container for application to the land shall be treated by the Class A pathogen requirements as defined above in Section I.B.3.a. above.

3. Management Practices

Either a label shall be affixed to the bag or other container in which sewage sludge that is sold or given away for application to the land, or an information sheet shall be provided to the person who receives sewage sludge sold or given away in an other container for application to the land. The label or information sheet shall contain the following information:

a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.

b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet.

c. The annual whole sludge application rate for the sewage sludge that will not cause any of the annual pollutant loading rates in Table 4 above to be exceeded.

4. Notification Requirements - None.

5. Recordkeeping Requirements - The sludge documents will be retained on site at the same location as other NPDES records.

The person who prepares sewage sludge or a sewage sludge material shall develop the following information and shall retain the information for five years.

a. The concentration in the sludge of each pollutant listed above in found in Element I, Section I, Table 1.

b. The following certification statement found in §503.17(a)(6)(iii).

"I certify, under penalty of law, that the management practice in §503.14(e), the Class A pathogen requirement in §503.32(a), and the vector attraction reduction requirement in (insert vector attraction reduction option) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practice,

pathogen requirements, and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

c. A description of how the Class A pathogen reduction requirements are met.

d. A description of how the vector attraction reduction requirements are met.

e. The annual whole sludge application rate for the sewage sludge that does not cause the annual pollutant loading rates in Table 4 to be exceeded. See Appendix A to Part 503 - Procedure to Determine the Annual Whole Sludge Application Rate for a Sewage Sludge.

6. Reporting Requirements - None.

ELEMENT 2- SURFACE DISPOSAL

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE SURFACE DISPOSAL

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present.

2. If requirements for sludge management practices or pollutant criteria become more stringent than the sludge pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated at Section 405(d)(2) of the Clean Water Act.

3. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person (owner or operator of a sewage sludge unit) for disposal in a surface disposal site, the permit holder shall provide all necessary information to the parties who receive the sludge to assure compliance with these regulations.

4. The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).

5. The permittee or owner/operator shall submit a written closure and post closure plan to the permitting authority 180 days prior to the closure date. The plan shall include the following information:

(a) A discussion of how the leachate collection system will be operated and maintained for three years after the surface disposal site closes if it has a liner and leachate collection system.

(b) A description of the system used to monitor continuously for methane gas in the air in any structures within the surface disposal site. The methane gas concentration shall not exceed 25% of the lower explosive limit for methane gas for three years after the sewage sludge unit closes. A description of the system used to monitor for methane gas in the air at the property line of the site shall be included. The methane gas concentration at the surface disposal site property line shall not exceed the lower explosive limit for methane gas for three years after the sewage sludge unit closes.

(c) A discussion of how public access to the surface disposal site will be restricted for three years after it closes.

B. Management Practices

1. An active sewage sludge unit located within 60 meters of a fault that has displacement in Holocene time shall close by March 22, 1994.

2. An active sewage sludge unit located in an unstable area shall close by March 22, 1994.

3. An active sewage sludge unit located in a wetland shall close by March 22, 1994.

4. Surface disposal shall not restrict the flow of the base 100-year flood.

5. The run-off collection system for an active sewage sludge unit shall have the capacity to handle run-off from a 25-year, 24-hour storm event.

6. A food crop, feed crop, or a fiber crop shall not be grown on a surface disposal site.

7. Animals shall not be grazed on a surface disposal site.

8. Public access shall be restricted on the active surface disposal site and for three years after the site closes.

9. Placement of sewage sludge shall not contaminate an aquifer. This shall be demonstrated through one of the following:

   (a) Results of a ground-water monitoring program developed by a qualified ground-water scientist.

   (b) A certification by a qualified ground-water scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer.

10. When a cover is placed on an active surface disposal site, the concentration of methane gas in air in any structure within the surface disposal site shall not exceed 25 percent of the lower explosive limit for methane gas during the period that the sewage sludge unit is active. The concentration of methane gas in air at the property line of the surface disposal site shall not exceed the lower explosive limit for methane gas during the period that the sewage sludge unit is active. Monitoring shall be continuous.

C. Testing Requirements

1. Sewage sludge shall be tested at the frequency show below in Element 2, Section I.D. for PCBs. Any sludge exceeding a concentration of 50 mg/Kg shall not be surface disposed.

2. Pathogen Control

All sewage sludge that is disposed of in a surface disposal site shall be treated by either the Class A or Class B pathogen requirements unless sewage sludge is placed on an active surface disposal site, and is covered with soil or other material at the end of each operating day.

(a) Six alternatives are available to demonstrate compliance with Class A sewage sludge. All 6 alternatives require either the density of fecal coliform in the sewage sludge be less than 1000 MPN per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container for application to the land. Below are the additional requirements necessary to meet the definition of a Class A sludge. Alternatives 5 and 6 are not authorized to demonstrate compliance with Class A sewage sludge in Texas permits.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at a specific value for a period of time. See 503.32(a)(3)(ii) for specific information.

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 and shall remain above 12 for 72 hours.

The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12.

At the end of the 72 hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(ii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(iii) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sludge is prepared for sale or give away in a bag or other container for application to the land.

The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land.

Alternative 5 - Sewage sludge shall be treated by one of the Processes to Further Reduce Pathogens (PFRP) described in 503 Appendix B. PFRPs include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 - Sewage sludge shall be treated by a process that is equivalent to a Process to Further Reduce Pathogens, if individually approved by the Pathogen Equivalency Committee representing the EPA.

(b) Four alternatives are available to demonstrate compliance with Class B sewage sludge. Alternatives 2, 3, and 4 are not authorized to demonstrate compliance with Class B sewage sludge in Texas permits.

Alternative 1 - (i) Seven random samples of the sewage sludge shall be collected for one monitoring episode at the time the sewage sludge is used or disposed.

(ii) The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge shall be treated in one of the Processes to significantly Reduce Pathogens described in 503 Appendix B.

Alternative 3 - Sewage sludge shall be treated in a process that is equivalent to a PSRP, if individually approved by the Pathogen Equivalency Committee representing the EPA.

Alternative 4 - Sewage sludge placed on an active surface disposal site is covered with soil or other material at the end of each operating day.

3. Vector Attraction Reduction Requirements

All sewage sludge that is disposed of in a surface disposal site shall be treated by one of the following alternatives 1 through 11 for Vector Attraction Reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be higher than 45 degrees Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or an anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or an anaerobic treatment process.

Alternative 9 - (i) Sewage sludge shall be injected below the surface of the land.

(ii) No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

(iii) When sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10 - (i) Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

(ii) When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

Alternative 11 - Sewage sludge placed on an active sewage sludge unit shall be covered with soil or other material at the end of each operating day.

4. Methane Gas Control Within a Structure On Site

When cover is placed on an active surface disposal site, the methane gas concentration in the air in any structure shall not exceed 25% of the lower explosive limit (LEL) for methane gas during the period that the disposal site is active.

5. Methane Gas Control at Property Line

   The concentration of methane gas in air at the property line of the surface disposal site shall not exceed the LEL for methane gas during the period that the disposal site is active.

D. Monitoring Requirements

Methane Gas in covered structures on site - Continuous

Methane Gas at property line - Continuous

All other pollutants shall be monitored at the frequency shown below:

Amount of sewage sludge* (metric tons per 365 day period)	Frequency
0 ≤ Sludge < 290	Once/Year
290 ≤ Sludge < 1,500	Once/Quarter
1,500 ≤ Sludge < 15,000	Once/Two Months
15,000 ≤ Sludge	Once/Month

* Amount of sewage sludge placed on an active sewage sludge unit (dry weight basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 40 CFR 503.8(b).

SECTION II. REQUIREMENTS SPECIFIC TO SURFACE DISPOSAL SITES WITHOUT A LINER AND LEACHATE COLLECTION SYSTEM.

1. Pollutant limits - Sewage sludge shall not be applied to a surface disposal site if the concentration of the listed pollutants exceed the corresponding values based on the surface disposal site boundary to the property line distance:

TABLE 5

Unit boundary to property line distance (meters)	Pollutant Concentrations* Arsenic (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	PCB's (mg/kg)
0 to less than 25	30	200	210	49
25 to less than 50	34	220	240	49
50 to less than 75	39	260	270	49
75 to less than 100	46	300	320	49
100 to less than 125	53	360	390	49
125 to less than 150	62	450	420	49
≥ 150	73	600	420	49

* Dry weight basis

2. Management practices - Listed in Section I.B. above.

3. Notification requirements

a. The permittee shall assure that the owner of the surface disposal site provide written notification to the subsequent site owners that sewage sludge was placed on the land.

b. The permittee shall provide the location of all existing sludge disposal/use sites to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.

4. Recordkeeping requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.

a. The distance of the surface disposal site from the property line and the concentration (mg/Kg) in the sludge of each pollutant listed above in Table 5, as well as the applicable pollutant concentration criteria listed in Table 5.

b. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 503.27(a)(1)(ii) or 503.27(a)(2)(ii) as applicable to the permittees sludge disposal activities.

c. A description of how either the Class A or Class B pathogen reduction requirements are met, or whether sewage sludge placed on a surface disposal site is covered with soil or other material at the end of each operating day.

d. A description of how the vector attraction reduction requirements are met.

e. Results of a groundwater monitoring program developed by a qualified ground-water scientist, or a certification by a qualified groundwater scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer. A qualified groundwater scientist is an individual with a baccalaureate or post graduate degree in the natural sciences or engineering who has sufficient training and experience in groundwater hydrology and related fields, as may be demonstrated by State registration, professional certification or completion of accredited university programs, to make sound professional judgements regarding groundwater monitoring, pollutant fate and transport, and corrective action.

5. Reporting Requirements - None.

SECTION III. REQUIREMENTS SPECIFIC TO SURFACE DISPOSAL SITES WITH A LINER AND LEACHATE COLLECTION SYSTEM.

1. Pollutant limits - None.

2. Management Practices - Listed in Section I.B. above.

3. Notification requirements

a. The permittee shall assure that the owner of the surface disposal site provide written notification to the subsequent owner of the site that sewage sludge was placed on the land.

b. The permittee shall provide the location of all existing sludge disposal/use sites to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.

4. Recordkeeping requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.

a. The following certification statement found in 503.27(a)(1)(ii).

"I certify, under penalty of law, that the pathogen requirements (define option used) and the vector attraction reduction requirements in (define option used) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine the (pathogen requirements and vector attraction reduction requirements, if appropriate) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

b. A description of how either the Class A or Class B pathogen reduction requirements are met or whether sewage sludge placed on a surface disposal site is covered with soil or other material at the end of each operating day.

c. A description of how the vector attraction reduction requirements are met.

d. Results of a ground-water monitoring program developed by a qualified ground-water scientist, or

A certification by a qualified ground-water scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer.

5. Reporting Requirements - None.

ELEMENT 3 - MUNICIPAL SOLID WASTE LANDFILL DISPOSAL

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

1. The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 40 CFR 258 concerning the quality of the sludge disposed in a municipal solid waste landfill.

2. If requirements for sludge management practices or pollutant criteria become more stringent than the sludge pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated at Section 405(d)(2) of the Clean Water Act.

3. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a MSWLF for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.

4. The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).

5. The permittee shall provide the location of all existing sludge disposal/use sites to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

   The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.

6. Recordkeeping requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.

   a. The description and results of the tests performed, required by the owner/operator of the MSWLF to demonstrate compliance with the 40 CFR 258 regulations.

   b. A certification that sewage sludge meets the requirements in 40 CFR 258 concerning the quality of the sludge disposed in a municipal solid waste landfill unit.

7. Reporting requirements - None.

[COMMENT1]

[COMMENT2]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT3]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT4]CHOOSE FOR GRAB pH MONITORING

[COMMENT5]

[COMMENT6]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT7]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT8]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT9]

[COMMENT10]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT11]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT12]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT13]CHOOSE FOR GRAB pH MONITORING

[COMMENT14]

[COMMENT15]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT16]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT17]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT18]CHOOSE FOR GRAB pH MONITORING

[COMMENT19]

[COMMENT20]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT21]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT22]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT23]CHOOSE FOR GRAB pH MONITORING

[COMMENT24]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT25]

CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT26]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT27]CHOOSE FOR GRAB pH MONITORING

[COMMENT28]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT29]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT30]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT31]CHOOSE FOR GRAB pH MONITORING

[COMMENT32]DELETE pH RANGE LIMITS AND MONITORING TABLES IF NOT REQUIRED

[COMMENT33]
CHOOSE FOR CONTINUOUS pH MONITORING: INCLUDE FOOTNOTE 1/
[COMMENT34]CHOOSE FOR GRAB pH MONITORING: DEFAULT LIMITS = 6-9. REVISE IF NEEDED.

[COMMENT35]CHOOSE FOR GRAB pH MONITORING

[COMMENT36]

[COMMENT37]
MINOR DISCHARGER PERMIT OPTION: FOR MINOR PERMITS, DELETE THE ABOVE MAJOR DISCHARGER OPTION AND CONVERT THE FOLLOWING "COMMENT" TO TEXT.
[COMMENT38]
C. REPORTING OF MONITORING RESULTS (MINOR DISCHARGERS)

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

1. Reporting periods shall end on the last day of the months March, June, September, and December.

2. The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.
[COMMENT39]PERMIT_2: Master Permit Template, PART II, Major/Minor Permit Options

Filename: fnl_permit2.wpd
Directory: C:\Program Files\Qualcomm\Eudora Mail\Attach
Template: C:\WINNT\Profiles\103124\Application Data\Microsoft\Templates\NORMAL.DOT
Title:
Subject:
Author: ESH-19
Keywords:
Comments:
Creation Date: 02/08/2001 1:16 PM
Change Number: 1
Last Saved On:
Last Saved By:
Total Editing Time: 1 Minute
Last Printed On: 02/08/2001 1:16 PM
As of Last Complete Printing
Number of Pages: 75
Number of Words: 22,899 (approx.)
Number of Characters: 130,525 (approx.)