To: Chen.Isaac@epamail.epa.gov
From: Marc Bailey <marc@lanl.gov>
Subject: Fwd: Comments on EPA Preliminary Draft NPDES Permit No. NM0028355
Cc: steven Rae <stevenrae@lanl.gov>, saladen@lanl.gov, jacquezc@lanl.gov, beth Gray <bethg@lanl.gov>, "Gene E. Turner" <gturner@doeal.gov>, wardwell@lanl.gov, sandovalt@lanl.gov, bret_lucas@nmenv.state.nm.us
Bcc: marc Bailey <marc@lanl.gov>
Attached: c:\docume~1\082445\applic~1\qualcomm\eudora\attach\Draft permit February 200522.doc;c:\docume~1\082445\applic~1\qualcomm\eudora\attach\Attachment 2 pH summary 2004 permt reapp.xls;c:\docume~1\082445\applic~1\qualcomm\eudora\attach\TA 3 Power Plant Environmental System Flow Diagram Outfall 001 Attachment 1.doc;

Mr. Chen-

Attached are the Laboratory's comments on EPA's Preliminary Draft NPDES Permit No. NM0028355 along with two supporting documents Comments were made directly on the Draft you provided using "track changes". Detailed Comments can be found at the end of the Draft beginning on page 5 of Part II.

Please contact me if you have any questions.

Thank you again for the extension.

Marc Bailey

Marc Bailey (marc@lanl.gov)
ENV - Water Quality and Hydrology
Regulatory Compliance and Line Services Team
665-8135 699-4926 (cell)
MS K497

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 - 15 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 December 29, 2000.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight, (5 years from issuance)

Issued on

Prepared by

Miguel I. Flores
Director
Water Quality Protection Division (6WQ)

Isaac Chen
Environmental Engineer
NPDES Permits Branch (6WQ-P)

PART I - REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001
Discharge Type: Continuous
Latitude 35°52'26"N, Longitude 106°19'089"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, R/O reject, floor and sink drains, and treated 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:

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 (*1) STORET: 50060	****	****	11 ug/l	11 ug/l
pH (Standard Units) STORET: 00400	Ranges from 6.0 to 9.0			

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	Continuous	Totalizer Record
TSS STORET: 00530	1/Month	24-hr Composite
Total Residual Chlorine STORET: 50060	1/Month	Grab
pH (Standard Units) STORET: 00400	1/~~Day~~Month	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°19'09"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.

PCBs
There shall be no discharge of PCB compounds such as those commonly used for transformer fluid. (*1)

FOOTNOTES

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

INTERNAL OUTFALL 001A**(Recommend Deletion, See Detailed Comments (1))**
Discharge Type: ~~Continuous~~Intermittent

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 boiler blowdown drains, demineralizer backwash, R/O reject, and any low volume waste (sinks and floor drains) to Outfall 001.

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

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
Oil and Grease (*1) STORET: 00556(*1)	****	****	15	20
Total Copper (*1) STORET: 01042	****	****	1.02	1.02
Total Iron (*1) STORET: 01045	****	****	~~1.0~~10	~~1.04~~0

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/~~Day~~Month	Estimate
TSS STORET: 00530	1/Month	~~24-hr Composite~~grab
Oil and Grease STORET: 00556	1/Month	~~24-hr Composite~~grab
Total Copper STORET: 01042	1/Month	~~24-hr Composite~~grab
Total Iron STORET: 01045	1/Month	~~24-hr Composite~~grab

SAMPLING LOCATION(S) (Recommend deletion of internal outfalls, see Detailed Comments 1)
Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at a point after the Secondary Environmental Tank prior to commingling with other effluents.

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.

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

INTERNAL OUTFALL 001B **(No Discharge, Recommend Deletion, See Detailed Comments (1))**
Discharge Type: Intermittent ~~or Continuous~~

~~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 Combusting Gas Turbine Generator (CGTG) oily waste to Outfall 001.~~

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

~~PARAMETERS/STORET CODES~~	~~DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS~~			
	~~QUANTITY/LOADING~~		~~QUALITY/CONCENTRATION~~	
	~~(LBS/DAY UNLESS STATED)~~		~~(mg/L UNLESS STATED)~~	
	~~MONTHLY AVG~~	~~DAILY MAX~~	~~MONTHLY AVG~~	~~DAILY MAX~~
~~Flow~~	~~Report MGD~~	~~Report MGD~~	~~****~~	~~****~~
~~STORET: 50050~~				
~~TSS~~	~~****~~	~~****~~	~~30~~	~~100~~
~~STORET: 00530~~				
~~Oil and Grease~~	~~****~~	~~****~~	~~15~~	~~20~~
~~STORET: 00556~~				

~~PARAMETERS/STORET CODES~~	~~MONITORING REQUIREMENTS~~	
	~~FREQUENCY OF ANALYSIS~~	~~SAMPLE TYPE~~
~~Flow~~	~~1/Day~~	~~Estimate~~
~~STORET: 50050~~		
~~TSS~~	~~1/Year~~	~~Grab~~
~~STORET: 00530~~		
~~Oil and Grease~~	~~1/Year~~	~~Grab~~
~~STORET: 00556~~		

~~SAMPLING LOCATION(S)~~
~~Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at a point after the CGTG prior to commingling with other effluents.~~

~~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.~~

~~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 If any individual analytical test results is less than the minimum quantification level (MQL) listed at Part II.A of this permit, a value of zero (0) may be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements. **Recommend listing MQLs for each parameter listed in the permit for clarification. See Page 1, Part II, Paragraph A.**

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.

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

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 (*1) STORET: 00310	75/80	112/119	30	45
TSS (*1) STORET: 00530	75/80	112/119	30	45
Fecal Coliform Bacteria (*2) STORET: 74055	****	****	500 (#/100ml)	500 (#/100ml)
Total Residual Chlorine (*3) STORET: 50060	****	****	11 ug/l	11 ug/l
pH (Standard Units) STORET: 00400	Ranges from 6.0 to 9.0			

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	Continuous	Totalizer Record
BOD5 STORET: 00310	1/Month	24-Hr Composite
TSS STORET: 00530	1/Month	24-Hr Composite
Fecal Coliform Bacteria STORET: 74055	1/Month	Grab
Total Residual Chlorine STORET: 50060	1/Month	Grab
pH (Standard Units) STORET: 00400	1/~~Day~~Month	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): 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.

FOOTNOTES

*1 Mass loads of 75 and 112 lbs/day apply from the beginning of the effective date of the permit and lasting until the average discharge rate has increased to 0.318 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. Mass loads of 80 and 119 lbs/day apply beginning the connection of sanitary waste water from a residential subdivision located in Los Alamos County lasting through the expiration date of the permit.

*2 Logarithmic mean.

*3 Effluent limitations and monitoring requirements only apply when discharge is made to Canada del Buey. If any individual analytical test results is less than the minimum quantification level (MQL) listed at Part II.A of this permit, a value of zero (0) may be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

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			
	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 Toxic Organics (*1) STORET: 78141	****	****	1.0	1.0
Tritium (*2) STORET: 82136	****	****	Report	Report
Total Alpha STORET: 01501	****	****	Report	Report
Ra 226+228 STORET: 11503	****	****	Report	Report
Total Residual Chlorine (*3) STORET: 50060	****	****	11 ug/l	11 ug/l
~~4,4'-DDT and derivatives (*3) STORET: 39300~~	~~****~~	~~****~~	~~0.001 ug/l~~	~~0.001 ug/l~~
Perchlorate (*3) STORET: 61209	****	****	Report	Report
pH (Standard Units) STORET: 00400	Ranges from 6.0 to 9.0			

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	~~1/Day~~Continuous	Record

Chemical Oxygen Demand STORET: 00340	1/Month	Grab
Total Suspended Solids STORET: 00530	1/Month	Grab
Total Toxic Organics STORET: 78141	1/Month	Grab
Tritium (*2) STORET: 82136	1/Year	Grab
Total Alpha STORET: 01501	1/Year	Grab
Ra 226+228 STORET: 11503	1/Year	Grab
Total Residual Chlorine STORET: 50060	1/Month	Grab
~~4,4'- DDT STORET: 39300~~	~~1/Month~~	~~Grab~~
Perchlorate STORET: 61209	1/Year	Grab
pH (Standard Units) STORET: 00400	1/~~Day~~Month	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~~.34~~"N, Longitude 106°17'48~~.55~~2"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 results is less than the minimum quantification level (MQL) listed at Part II.A of this permit, a value of zero (0) may be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

OUTFALL 05A055 - High Explosives Waste Water Treatment Plant (TA-16-1508)
Discharge Type: Intermittent
Latitude 35°50'49"N, Longitude 106°19'51"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			
	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
Perchlorate STORET: 61209	****	****	Report	Report
pH (Standard Units) STORET: 00400	Ranges from 6.0 to 9.0			

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/~~Day~~Month	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
Perchlorate STORET: 61209	1/Year	Grab
pH (Standard Units) STORET: 00400	1/~~Day~~Month	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°19'51"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~~ EPA approved , Laboratory computer generated 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~~ in 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.

OUTFALLS 03A
Discharge Type: Intermittent
Outfall 03A021: Latitude 35°52'14"N, Longitude 106°19'121"W (TA3-29)
Outfall 03A022: Latitude 35°52'14"N, Longitude 106°19'01"W (TA3-662274)
03A027: Latitude 35°52'26"N, Longitude 106°19'08"W (TA3-285 & 2327)
03A028: Latitude 35°49'58"N, Longitude 106°17'47"W (TA-15-185 & 202)
03A048: Latitude 35°52'11"N, Longitude 106°15'45"W (TA-53-964 963 & 979978)
Outfall 03A113: Latitude 35°52'03"N, Longitude 106°15'43"W
(TA-53-293, 294, 952, 1032, & 1038)
Outfall 03A130: Latitude 35°50'19"N, Longitude 106°19'33"W (TA11-30)
Outfall 03A158: Latitude 35°52'30"N, Longitude 106°16'18"W (TA21-209)
Outfall 03A160: Latitude 35°51'47"N, Longitude 106°17'49"W (TA35-124)
Outfall 03A181: Latitude 35°51'5150.8"N, Longitude 106°18'05"W (TA55-6)
Outfall 03A185: Latitude 35°50'00"N, Longitude 106°18'40"W (TA15-625 & 626)
Outfall 03A199: Latitude 35°52'33"N, Longitude 106°19'19"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 and other wastewater to Mortandad Canyon (Outfall 03A021, 022, and 181), Sandia Canyon (Outfalls 03A027, 113, and 199), Water Canyon (Outfall 03A028, 130, and 185), and Los Alamos Canyon (Outfall 03A048 and 158), and Ten Site Canyon (Outfalls 03A160), 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:

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	****	****	30	100

STORET: 00530				
Total Residual Chlorine (*1)	****	****	11 ug/l	11 ug/l
STORET: 50060				
Total Phosphorus (*1)	****	****	20	40
STORET:00665				
Total Copper (*1)	****	****	1.02	1.02
STORET: 01042				
Total Selenium (*1)	****	****	5.0 ug/l	5.0 ug/l
STORET: 01147				
~~Total Cyanide (*1)~~	~~****~~	~~****~~	~~5.2 ug/l~~	~~5.2 ug/l~~
STORET: 00720				
Tritium (*2)	****	****	Report	Report
STORET: 82136				
~~4,4'-DDT and derivatives (*1)~~	~~****~~	~~****~~	~~0.001 ug/l~~	~~0.001 ug/l~~
~~STORET: 39300~~				
pH (Standard Units)	Ranges from 6.0 to 9.0			
STORET: 00400				

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	1/~~Day~~Month	Estimate
STORET: 50050		
Total Suspended Solids	1/Month	Grab
STORET: 00530		
Total Residual Chlorine (*3)	1/Month (1/Year)	Grab
STORET: 50060		
Total Phosphorous	1/Quarter	Grab
STORET: 00665		
Total Copper	1/Year	Grab
STORET: 01042		
Total Selenium ~~(*3)~~	~~1/Month (~~1/Year~~)~~	Grab
STORET: 01147		
~~Total Cyanide (*3)~~	~~1/Month (1/Year)~~	~~Grab~~
~~STORET: 00720~~		
Tritium (*2)	1/Year	Grab
STORET: 82136		
~~4,4'-DDT and derivatives (*3)~~	~~1/Month (1/Year)~~	~~Grab~~
~~STORET: 39300~~		
pH (Standard Units)	1/~~Day~~Month	Grab
STORET: 00400		

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

*2 When accelerator produced.

*3 Monitoring frequency of 1/Month applies to the following specific outfalls only:
~~TRC - 03A021 and 03A027~~
~~**Selenium - 03A027**~~ **See Detailed Comments (5) and (9)**
~~4,4'-DDT+DDD+DDE - 03A130~~
~~Cyanide - 03A130 and 03A185~~
Monitoring frequency of 1/year applies to the rest of outfalls not listed above.

OUTFALL 02A129 (TA-21-357)
Discharge Type: Intermittent
Latitude 35°52'3~~1~~2"N, Longitude 106°16'~~29~~31"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:

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 Phosphorus STORET: 00665	****	****	20	40
Sulfite (as SO_3) STORET: 00740	****	****	35	70
pH (Standard Units) STORET: 00400	Ranges from 6.0 to 9.0			

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow STORET: 50050	1/~~Day~~Quarter	Estimate
Total Suspended Solids STORET: 00530	1/Quarter	Grab
Total Iron STORET: 10145	1/Quarter	Grab
Total Phosphorus STORET: 00665	1/Quarter	Grab
Sulfite (as SO_3) STORET: 00740	1/Quarter	Grab

pH (Standard Units) STORET: 00400	1/~~Day~~Quarter	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°52'32"N, Longitude 106°16'31"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.

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 (EPA approved, Laboratory computer generated) as specified in Part III.D.4 of this permit and shall be submitted monthly, quarterly, or yearly as specified in the monitoring requirements for each outfall in Part I.

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 28th day of the month following each reporting period.

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)
Copper (Total)	10
Selenium (Total)	5
Residual Chorine (Total)	100
4,4' DDT	.1
perchlorates	Report
TNT	?
RDX	?
Iron (Total)	?
Phosphorus (Total)	?
COD	?
Request MQL for all permitted parameters	

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.

Copper, Selenium, ~~Tritium, Cyanide,~~ TRC, ~~and 4,4' DDT~~.

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.

~~G.~~D. TRITIUM

The permittee shall provide sufficient information to demonstrate the tritium sources if it intents to claim that tritium detected in the effluent is reactor-produced, but not accelerator-produced.

E. 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.

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

Method 1664 may be used as an oil and grease alternative test procedure for NPDES permit compliance monitoring purposes. 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.

G. CO-PERMITTEES

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.

H. NONCOMPLIANCE SAMPLING

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.

I. REOPENER CLAUSE

This permit may be reopened and modified or revoked and reissued to reflect any applicable changes to the New Mexico Water Quality Standards. In accordance with 40 CFR 122.44(d), the permit may be reopened and modified during the life of the permit if relevant portions of The State of New Mexico Standards for Interstate and Intrastate Surface Waters are revised, or new Standards are established and/or remanded by the New Mexico Water Quality Control Commission. In addition, the permit may be reopened and modified during the life of the permit, if the procedures implementing the State of New Mexico Standards for Interstate and Intrastate Surface Waters are either revised or promulgated by the New Mexico Environment Department.

In accordance with 40 CFR 122.62(s)(2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit reissuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR 124.5.

~~S.~~J. 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~~Mass Spectrometry: EPA Method 200.8 ICP-MS (using hydride generation prep)

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: SW846 Method 3015

Hot Plate Digestion: EPA Method 200.2

DETAILED COMMENTS:

(1) Internal Outfalls (NPDES Outfalls 001A and 001B):

The Laboratory's primary recommendation is that EPA delete the requirements for internal outfalls 001A and 001B. Although the Laboratory's TA-3 Power Plant generates electricity for LANL facility use, the Laboratory does not meet the criteria for a facility that requires pretreatment under the federal CWA and does not meet 40 CFR 423.10 Applicability requirements. 40 CFR Part 423.10 states, in part: "***The provisions of this part are applicable to discharges resulting from the operation of a generating unit by an establishment primarily engaged in the generation of electricity for distribution and sales (emphasis added)*** *which results primarily from a process utilizing fossil-type fuel...in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium.*"

Additionally, there will be no discharge from the Combust. Gas Turbine Generation (CGTG) unit into NPDES Outfall 001. The de minimus waste stream from the CGTG will be containerized and disposed of according to Laboratory procedures and not discharged to the outfall. Therefore, outfall 001B does not exist. A revised flow schematic is provided as Attachment 1. Total Iron limits should be consistent with NPDES Outfall 02A129 (TA-21 Steam Plant).

If EPA agrees to delete the internal outfalls, EPA may want to add the additional requirements (i.e. Total Iron, Total Copper, Oil & Grease) from the internal outfall to Outfall 001, if these are still pollutants of concern to NMED and EPA. The Laboratory's data summary does not indicate an impact to the environment from these parameters at Outfall 001. The Laboratory recommends that EPA delete the requirements for internal outfalls (001A and 001B).

(2) pH Monitoring:

The Laboratory recommends that EPA reduce the frequency of monitoring for pH at all outfalls. Currently, the draft permit requires pH analyses at all outfalls at a frequency of once per day. The pH requirements in the draft permit are not consistent with the draft Fact Sheet. The Laboratory's existing permit requires pH monitoring at the following frequencies: (1) NPDES Outfall 001=1/month; (2) NPDES Outfall 13S=1/week; NPDES Outfall 051=1/week; (4) NPDES Outfall 05A055 1/quarter; (5) 03A Cooling Towers=1/quarter; and, (6) NPDES Outfall 02A129=1/quarter. The pH data provided in the NPDES Permit Re-Application (August 2004) consisted of the maximum and minimum pH values recorded over the past 6 years at each outfall. Attached is a new spreadsheet showing the maximum,

minimum, and long term average for each outfall from 1/1/98 through 12/31/2003 (Attachment 2). During this time period there were 3 exceedances of the maximum pH limit out of 863 samples collected. Corrective actions were taken to mitigate recurrence. As a result, there has not been a pH exceedance since December 17, 2002. Based on BPJ and the long term averages and the compliance record for pH monitoring, the Laboratory feels the frequency of pH analysis should be no more frequent than for other parameters listed for each outfall category. Recommended sample frequencies are noted using "Tracked Changes". These recommended pH monitoring frequencies are more stringent than existing permit requirements and this allows pH to be collected at the same time as other parameters are collected at the outfall. Please note, it would take one Laboratory person an entire day to collect pH samples at all the outfalls because of the distribution of outfalls over 40 square miles, intermittent flows, and security access ~~issues~~requirements.

(3) 4,4'-DDT and Derivatives:

The Laboratory requests deletion of monitoring and reporting requirements at NPDES Outfalls 051, 03A130 and 03A158 for 4'4'-DDT and Derivatives due to laboratory error in analysis/reporting. 4,4'-DDT (DDT) was documented in error as "present" in the Laboratory's NPDES Permit Re-Application (Form 2C) for outfalls 03A130, 03A158, and 051. The Laboratory did not expect any "detections" for DDT at any outfall since LANL does not use this pesticide (DDT has been banned for many years). On Form 2C, the "BELIEVED PRESENT" box was automatically checked when the analytical result showed a result based on the application software setup. However, we have since learned that the analytical laboratory had problems with pesticide results in the summer of 2004, and in fact they had DDT and DDE laboratory cross contamination from high-level waste samples. There were 20 samples that were affected by this cross contamination including the samples for the three outfalls listed above. The analytical laboratory has indicated that these results should be qualified "R" (rejected). We have re-sampled Outfall 051 for DDT and the result was non-detect. The remaining two outfalls will be re-sampled ASAP and LANL will submit the results to EPA as soon as they are received. Based on this information, the Laboratory feels that DDT is not a contaminant of concern at the NPDES outfalls, and should not be included in the new permit. Analytical documentation of the cross contamination is available, upon request. Please delete DDT requirements from outfalls 051, 03A130, 03A158 and other category 03A outfalls.

(4) Cyanide:

The total cyanide (CN) results provided on Form 2C of the NPDES Permit Re-Application for NPDES Outfalls 03A027, 03A048, 03A113, 03A130, and 03A185 should have been qualified as "J" (estimated value) for these outfalls, except 03A185. In addition, the CN result for each of these five outfalls was less than the MQL of 10 ug/L and should have been reported as zero on the application. The Laboratory is investigating a possible interference in the sample matrix using Method 335.3. The Laboratory has re-sampled these outfalls for CN and will analyze the samples using Method 4500 CN I, Standard Methods 18th edition.

Analytical results will be forwarded to EPA upon receipt. Based on the fact that the CN results were below the MQL, subject to matrix interference, and "J" flagged, the Laboratory requests that the CN requirement be deleted from the draft permit.

(5) Selenium:

The Laboratory requests that total selenium reporting requirements for specified outfalls be reduced from 1/month to 1/year. Wastewater effluent samples taken at Los Alamos National Laboratory are routinely analyzed for selenium (see DMR summaries in permit application). ICP-AES and ICP-MS analysis of the wastewater effluent have shown Se detections in some of LANL's samples. However, based on process knowledge, it is believed that the elevated Se levels are indicative of an analytical problem and not an actual Se contamination. The analysis of Se by traditional ICP-AES and ICP-MS is prone to analytical problems and interferences. EPA approved methods identify bromine as a common interference in the ICP-MS. The Laboratory uses bromine as a biocide in certain cooling towers. Cooling towers with high selenium values were reanalyzed using ICP-MS using a hydride generation preparation. Analytical results from these analyses have shown that selenium was non-detectable. Based on this information, the Laboratory requests a reduced sampling frequency from 1/month to 1/year.

The Laboratory requests that EPA include ICP-MS using hydride generation as an acceptable method for selenium analyses.

(6) Minimum Quantification Limits (MQLs):

The Laboratory requests that MQLs be specified for all parameters in the draft permit. If MQLs do not exist, the Laboratory may develop MQLs based on the permit process in Part II.A, paragraph 2 (MQL=3.3 x MDL). This information can be provided, upon request.

(7) ÷MQL Clarification:

Page 1, Part II.A. Minimum Quantification Level (MQL) states, in part: "*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.*" Question: If the average value (from multiple samples collected) for a parameter is below the established MQL, can the permittee report zero on the DMR? Please advise.

(8) Other Issues

Typographical errors and minor edits are incorporated into the draft permit using "Tracked Changes". Longitude/Latitude modifications were based on new GPS readings collected during the re-application process.

(9) TRC

Outfall 03A021: On LANL's Form 2C, TRC was reported as 0.03 mg/l which is less than the MQL of 0.10 mg/l. A zero should have been reported on the Form 2C. The long term average for TRC for this outfall is 0.0 mg/l (see DMR summary). LANL recommends that the frequency of TRC analysis at Outfall 03A021 be the same as the rest of the 03A outfalls (1/year).

Outfall 03A 027: On Form 2C, TRC was reported as 0.0 mg/l. In the application data summary, a maximum of 0.5 mg/l and an average of 0.03 mg/l were reported. This was based on a maximum TRC value of 0.4 mg/l reported in Q4 CY 2001 and a maximum TRC value of 0.5 mg/l reported in Q1 CY 2002. The maximum permit limit during the permitted monitoring periods was 0.5 mg/l. EPA established a cooling tower compliance schedule for 2 years after the effective date of the February 2001 NPDES permit to reduce chlorine levels. During that time, EPA allowed LANL to install dechlorinators at the cooling towers. Due to these historic high results, the TRC average was skewed high. The frequency of TRC analysis at Outfall 03A027 should be the same as the other 03A outfalls (1/year).

(10) Sludge:

No sludge language was provided for review. Has the boilerplate language changed since the last permit? Can we get a copy of the new sludge language?

(11) Outfall 03A199:

NMED has expressed concern that Outfall 03A199 is a new discharge entering a 303(d) listed waters and therefore should be deleted from the proposed permit. Please note, Outfall 03A199 is permitted in the Laboratory's existing permit (issued December 29, 2000). Accordingly, the Laboratory has provided Discharge Monitoring Reports (No Flow DMRs) to EPA and NMED pursuant to the NPDES Permit NM0028355. The application for this outfall was submitted May 1998. The Laboratory recommends Outfall 03A199 remain in the permit.

To: Chen.Isaac@epamail.epa.gov
From: Marc Bailey <marc@lanl.gov>
Subject: NM0028355 Tritium Issue
Cc: steven Rae <stevenrae@lanl.gov>, saladen@lanl.gov, jacquezc@lanl.gov, beth Gray <bethg@lanl.gov>, "Gene E. Turner" <gturner@doeal.gov>, wardwell@lanl.gov, sandovalt@lanl.gov, bret_lucas@nmenv.state.nm.us
Bcc: marc Bailey <marc@lanl.gov>
Attached: C:\Documents and Settings\082445\My Documents\Re-application 2004\Info for Isaac Tritium\WPF.pdf; C:\Documents and Settings\082445\My Documents\Re-application 2004\Info for Isaac Tritium\01A74Rfinal1.doc; C:\Documents and Settings\082445\My Documents\Re-application 2004\Info for Isaac Tritium\WAC Chapter 31.doc; C:\Documents and Settings\082445\My Documents\Re-application 2004\Info for Isaac Tritium\RLW WAC Factsheet_LA-UR-04-729221.doc; C:\Documents and Settings\082445\My Documents\Re-application 2004\Info for Isaac Tritium\TA-55 Tritium.doc; C:\Documents and Settings\082445\My Documents\Re-application 2004\Info for Isaac Tritium\TA-21 Tritium.doc; C:\Documents and Settings\082445\My Documents\Re-application 2004\RLWCS Influent Schematic rev2.doc;

Mr. Chen-

Per your request, the Laboratory is providing supporting documentation and additional information concerning the accelerator-produced vs. reactor-produced tritium issue. To the best of our knowledge, the Laboratory has responded to all of your requests to date.

1) Procedures to identify and distinguish sources of tritium;

See attached files:
01A74Rfinal1
"Tritium and Strontium 90 Waste Stream Survey" identifies sources of tritium at the Laboratory. Section 2.1 identifies tritium waste generators. A complete list of the Laboratory Facilities that were surveyed for tritium can be found in Appendix A.

WAC Chapter 31
Chapter 3 of the LANL Waste Acceptance Criteria (WAC) document describes what can and cannot be discharged to the RLWTF for treatment (NPDES Outfall 051). Section 3.2 *Waste Profile Form* states: "All waste streams must be profiled using a Waste Profile Form (WPF)". And, "Waste Profile Forms must be updated annually on the anniversary date of the WPF approval". Table 3.0 identifies what wastes are "unacceptable" including accelerator produced tritium.

RLWWAC Factsheet_LA-UR-04-72922
This fact sheet provides an overview of the management procedures and criteria that are in place for wastewater discharge to the Radioactive Liquid Waste Collection System (RLWCS). It describes how sinks that are connected to the RLWCS are labeled. The label includes: "This drain is NOT for waste containing.....Accelerator-produced tritium regulated by the Clean Water Act".

TA-21 Tritium and TA-55 Tritium
Memos documenting the reactor-produced tritium at the Laboratory's tritium facilities at TA-21 and TA-55.

WPF
Blank Waste Profile Form for your reference.

2) A sewer-line flow diagram shows all waste sources to Outfall 051 and any potential internal sampling points prior to Outfall 051 and/or other outfalls which have potential discharge tritium; and

See attached file:
RLWCS Influent Schematic rev2
Schematic of the facilities that are connected to the RLWCS. As per the requirements in Chapter 3 in the Waste Acceptance Criteria cited above, all waste streams must be profiled using a Waste Profile Form (WPF) prior to discharge into the RLWCS. Sampling of the proposed waste stream is necessary to complete the WPF. If the composition of the an approved waste stream changes, the waste stream must be re-characterized.

3) The maximum access of data/information EPA and NMED may have to verify the sources of tritium.

The Waste Profile Forms for the contributors to the RLWCS are maintained in the Laboratory's NWIS-Solid Waste Operations (SWO) Group's
database. This information is available on-site and available to EPA and NMED inspectors upon request.

Please contact me if more information would be helpful.

Marc Bailey

Marc Bailey (marc@lanl.gov)
ENV - Water Quality and Hydrology
Regulatory Compliance and Line Services Team
665-8135 699-4926 (cell)
MS K497