

**NPDES PERMIT NO. NM0028355  
RESPONSE TO COMMENTS**

**RECEIVED ON THE SUBJECT DRAFT NATIONAL POLLUTANT DISCHARGE  
ELIMINATION SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH REGULATIONS  
LISTED AT 40CFR124.17**

**APPLICANT:** Los Alamos National Security, LLC  
Management Contractor for Operations  
Los Alamos, New Mexico 87544

and

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

**ISSUING OFFICE:** U.S. Environmental Protection Agency  
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**PERMIT ACTION:** Final permit decision and response to comments received on the  
draft reissued NPDES permit publicly noticed on January 28, 2006

**DATE PREPARED:** May 18, 2007

Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40,  
Code of Federal Regulations, revised as of July 31, 2006.

## SUBSTANTIAL CHANGES FROM DRAFT PERMIT

There are substantial changes from the draft reissued permit publicly noticed on January 28, 2006. All changes and the rationale for changes can be found in the following response to certification or response to comments. Only significant changes, such as addition or deletion of monitoring requirements or changes of limitations, are listed below.

- (A) Add effluent limitations and monitoring requirements for E. coli at Outfall 001 and Outfall 03A027 when effluent from Outfall 13S is reused and discharged at these outfalls.
- (B) Add monitoring and reporting requirements for selenium to the following outfalls:  
Outfalls 03A021, 03A022, 03A181, and 051 to Mortandad Canyon, and  
Outfalls 03A130, and 03A185 to Water Canyon.
- (C) Add effluent limitations and monitoring requirements for PCBs to Outfalls 001 and 13S; and monitoring only at Outfall 051.
- (D) Add site-specific whole effluent toxicity (WET) testing requirements to Outfalls 03A027 and 03A199.
- (E) Replace “Floating Solids or Visible Form” narrative condition with “Floating Solids, Oil and Grease” at all outfalls.
- (F) Delete Outfall 03A028.
- (G) Change effluent limitations for copper and zinc as below:

Outfall No.	Pollutant	Daily/Monthly Limits (µg/l)	Change
001	Zinc	175.1/116.8	to None
13S	Zinc	146.7/97.8	to None
051	Copper	12.9/8.6	to 0.2/0.14
051	Zinc	None	to 3.3/2.2
03A022	Copper	12.4/8.3	to 28/19
03A130	Copper	12.4/8.3	to 37/25
03A130	Zinc	131/87.3	to None
03A048	Copper	12.4/8.3	to 31/21
03A158	Copper	12.4/8.3	to 19/12
03A160	Copper	12.4/8.3	to 32/22
03A160	Zinc	131/87.3	to None
02A129	Copper	12.4/8.3	to 2.4/1.6
- (H) Delete effluent limitations and monitoring requirements for tritium from the permit.
- (I) Delete effluent limitations and monitoring requirements for fecal coliform from the permit.
- (J) Specify analytical methodology for PCB analyses as EPA Method 1668, Revision A.

## STATE CERTIFICATION

Section 401(a) of the Clean Water Act (CWA or “the Act”) provides that applicants for a Federal license or permit to conduct any activity that may result in a discharge to navigable waters must obtain a certification from the State in which the discharge originates that the discharge complies with the applicable provisions of the Act. Pursuant to Section 401(a)(1) of the Act and 40 CFR § 124.53(a), EPA may not issue a permit unless such a certification has been granted or waived by the State. Section 401(d) further provides that any State certification provided under Section 401

of the Act “shall become a condition on any Federal license or permit subject to the provision of this section,” and 40 CFR § 124.55(a)(2) mandates that “no final permit shall be issued” unless it incorporates the State certification requirements. EPA is without authority under the Act to review the appropriateness of such requirements. Roosevelt Campobello International Park Commission, et al. v. EPA, 684 F.2d 1041 (1<sup>st</sup> Circuit, 1982).

Pursuant to the New Mexico Water Quality Act, the New Mexico Environment Department (NMED) is the agency tasked with providing State certifications of federal permits. 74-6-4.E NMSA 1978. NMED provided EPA, Region 6 with CWA Section 401 certification of the draft permit by letter from Marcy Leavitt (NMED) to Miguel Flores (EPA), dated March 30, 2006. NMED also provided EPA with an amended letter of certification dated February 1, 2007. As required by the CWA and 40 CFR Part 124, the requirements specified in the State’s certification have been included in the final permit as discussed below:

## DISCUSSION OF STATE CERTIFICATION

### Condition 1

The New Mexico Environment Department NMED requires that the Environmental Protection Agency Region 6 (EPA 6) include limits and monitoring requirements for fecal coliform and E. coli bacteria at Outfall 13S, regardless of where the discharge occurs, because both receiving stream segments 20.6.4.97 and 20.6.4.98 have bacteria criteria.

### Response

Samples taken for bacteria testing at Outfall 13S may not be representative for discharges at Outfalls 001 and 03A027 due to chlorination or other pretreatment of reused water. According to information provided in the application, the treated sanitary wastewater may be discharged at Outfalls 001 and 03A027. Therefore, effluent limits and monitoring requirements for E. coli bacteria are added to Outfall 001 and 03A027 when treated sanitary wastewater is reused at the associated cooling tower or discharged via these outfalls. All monitoring requirements of fecal coliform in the proposed permit and/or in the conditions of the State certification are either deleted or denied because EPA has approved E. coli standards on December 29, 2006, and therefore, previous requirements for fecal coliform have been replaced in this permit.

### Condition 2

Mortandad and Water Canyons are listed as impaired due to selenium from “Industrial Point Source Discharges.” No TMDL has yet been developed to establish Wasteload Allocations for discharges to Mortandad and Water Canyons. NMED requires that EPA include monitoring and reporting requirements (but not effluent limits) for selenium at all outfalls that discharge to either of these canyons.

### Response

Monitoring and reporting requirements for selenium are added to the following outfalls:  
Outfalls 03A021, 03A022, 03A181, and 051 to Mortandad Canyon, and Outfalls 03A130, and 03A185 to Water Canyon. (Outfall 03A028 is deleted from the permit.)

### Condition 3

In March 2003, NMED measured concentrations of Polychlorinated Biphenyls (PCBs) in Los Alamos National Laboratory (LANL) outfalls 001, 13S and 051. Samples were analyzed using EPA Method 1668 Revision A method of analysis, and indicated 6,069 pg/L (0.00607 µg/l), 3,374 pg/L (0.00337 µg/l) and 4,320 pg/L (0.00432 µg/l) total PCBs respectively. NMED therefore requires in the original State certification dated March 30, 2006, that:

- The permit specify EPA's published *Method 1668 Revision A* for PCBs analysis and a corresponding MQL be determined, accordingly;
- Effluent limits and monitoring requirements be added to discharges at Outfalls 13S and 051. NMED recommends a monitoring frequency of not less than once per year; and
- Effluent monitoring requirement be incorporated into narrative requirement of "no discharge of PCBs" at Outfall 001. NMED recommends a PCB monitoring frequency consistent with the whole effluent toxicity testing frequency proposed for that outfall.

NMED sent a State certification amendment letter dated February 1, 2007, based on new information received by NMED. This information includes: (1) a joint effluent sampling of LANL's NPDES Outfall 051 by LANL / SWQB for PCBs using Congener method of analysis (EPA Method 1668 Rev. A) on August 2, 2006; (2) a letter from LANL to SWQB dated December 7, 2006, transmitting additional PCB data collected by LANL using the Congener method of analysis for samples collected from NPDES outfalls 001, 13S, and 051; (3) December 11, 2006 e-mail from LANL to SWQB documenting physical changes at TA-50; and (4) conversations between SWQB and EPA staff assigned to the project. The certification amendments include:

- Effluent limitation is not required at Outfall 051. NMED recommends continued monitoring of PCBs at Outfall 051 and the inclusion of a reopener clause in case data establish a "reasonable potential," thus triggering the need for an effluent limitation.
- If EPA does not apply the ELG's prohibition to discharge at Outfall 001, NMED requires a water quality based effluent limitation ("WQBEL") of 0.00064 µg/L of PCB to protect the human health criterion contained in 20.6.4.900 NMAC applicable in Sandia Canyon.
- The original certification is amended to require the application of the WQBEL (and associated monitoring) only when the discharge at Outfall 13S is to Canada del Buey (i.e., the limit would not be required when effluent is transmitted into the reuse system). In accordance with the Implementation Guidance, the WQBEL at these outfalls shall be 0.00064 µg/L of PCB. This WQBEL shall also apply to any other NPDES outfalls used for the discharge of effluent from the reuse system to surface waters of the state.

### Response

Effluent limitations and monitoring requirements for PCBs are added to Outfall 001 and to Outfall 13S when it discharges to Canada del Buey; and a monitoring requirement for PCBs is added at Outfall 051. EPA believes the reopener clause provision in the proposed permit is sufficient to address future PCB data at Outfall 051. Furthermore, Analytical Method 1668 Revision A is specified as the required analytical method for PCBs analysis in the permit and LANL is required to develop the specific method detection limit (MDL) and MQL in accordance with Appendix B to 40CFR Part 136 and submit the effluent specific MQL to EPA for approval .

If effluent from Outfall 13S is rerouted to other outfall(s), “no discharge” could be reported at Outfall 13S. The permittee shall take precautionary measures not to discharge PCB containing effluent at other outfalls except at Outfall 001. If such a discharge occurs, the effluent shall comply with the PCBs limitations. A total PCB effluent interim limitation of 0.014 µg/l, based on the wildlife habitat criteria is established for compliance as of the effective date of the permit because the criteria was effective in 2000 and the existing effluent quality must be able to meet the limitation without undergoing any modification of process. PCB effluent limitations based on human health criteria of 0.00064 µg/l are established as final limitations at Outfalls 001 and 13S and a compliance schedule is included for the permittee to identify the source of PCB and to take appropriate actions to correct the problem.

The proposed BPJ-based (best professional judgment) narrative condition of no discharge of PCBs at Outfall 001 was established to ensure that the power plant operation does not contribute PCBs. Consistent with the State certification and the fact that PCBs may appear at the source of cooling water, EPA has decided to replace the narrative “no discharge” requirement with the WQ-based PCBs effluent limitations. Human health criteria are long-term based criteria and because there is no imminent harm due to fish consumption in the receiving canyons (although the persistent toxic may migrate to downstream fish bearing waters,) EPA establishes both daily maximum and monthly average limitations at the criteria. Due to the complexity of the issue, it is difficult to determine at this time how quickly LANL can be expected to bring the discharge into compliance with the human health criteria. Therefore, the schedule to comply with the human health-based effluent limitations will be determined by EPA after reviewing the remediation plan as described below. A compliance schedule to identify and eliminate the source(s) of PCBs is established in the final permit as below:

- a. LANL shall start using Method 1668A for PCB analysis at the beginning of the effective date of the permit;
- b. Identify all possible PCBs causes/sources no later than eighteen (18) months from the effective date of the permit;
- c. Develop the site specific MQL for PCBs for Method 1668A no later than twelve (12) months from the effective date of the permit;
- d. Submit a source/cause remediation plan to EPA R6 NPDES Programs Branch (6WQ-P) for approval and a copy to NMED SWQB no later than twenty-four (24) months from the effective date of the permit;
- e. Start implementing corrective actions no later than six (6) months after EPA approves, in part or in whole, the source/cause remediation plan and schedules; and
- f. Complete corrective actions and comply with final effluent limitations per EPA approved schedule or one (1) day before the expiration date of the permit, whichever comes first.

#### COMMENTS RECEIVED ON STATE CERTIFICATION AMENDMENT

Letter, Matthew Bishop (Western Environmental Law Center) to Marcy Leavitt (NMED) and Miguel Flores (EPA), dated February 12, 2007.

Letter, Victoria George (LANL) to Willie Lane (EPA), dated February 20, 2007.

### RESPONSE TO COMMENTS ON STATE CERTIFICATION AMENDMENT

(Comments 1 and 2 were provided by Amigos Bravos and Concerned Citizens for Nuclear Safety represented by Western Environmental Law Center)

#### Comment 1

The commenter requests to reinstate the effluent limitations for PCBs at Outfall 051 and argues that the State should not make the “no reasonable potential” call based on one monitoring result.

#### Response

EPA denied the request because information available has demonstrated that the discharge at Outfall 051 has no reasonable potential to exceed PCB criteria. NMED’s determination of “reasonable potential” in the original certification was based on a single result and the new data is much lower than the applicable criteria. Therefore, it is not unreasonable for NMED to make a “no reasonable potential” call based on a new single result. The final permit still requires monitoring of PCBs at Outfall 051 and has a reopener clause to address the issue.

#### Comment 2

The commenter requests to increase the monitoring frequency for PCBs from 1/year to 1/quarter.

#### Response

EPA does not consider that an increase in the monitoring frequency is necessary based on the following reasons:

- a. The discharge has no reasonable potential to exceed the interim PCBs effluent limitations which are based on wildlife habitat criteria- an increase of monitoring frequency does not protect the wildlife habitat;
- b. It is unlikely that the permittee contributes PCBs through the current operations of its facility and the existing treatment process is not designed to remove PCBs- an increase of monitoring frequency does not provide adequate information to improve the treatment efficiency;
- c. The permittee will likely need to collect samples from the sewer system in order to identifying the sources and needs additional samples to verify the effectiveness of their corrective actions- an increase of monitoring frequency at outfall will not help the permittee to identify the sources; and
- d. EPA will consider a higher monitoring frequency if the discharge still shows “reasonable potential” after the final effluent limitations take effect.

(Comments 3 - 7 were provided by LANL)

#### Comment 3

LANL states in their general comments that (1) “Since the congener method is not approved under 40 CFR Part 136, the Laboratory believes that the inclusion of the congener method ...for the purpose of determining compliance, is inappropriate...” (2) “LANL has concerns about the variability of results using the congener method” (3) “we request that EPA Region 6 note that NMED has requested validation and approval of the congener method, and defer inclusion of the congener method as a requirement for permit compliance purposes in the LANL NPDES permit until the congener method is approved by the EPA Office of Water as a valid test method for use in permits” and (4) “...state certification that include test methods approved by EPA under [CWA] section 1314 shall become conditions of federal permits, and conversely that certifications that do not incorporate such approved conditions shall not become permit conditions.” LANL has proposed to use the Method 1668A for assessment purpose, to determine if the reductions in PCB loadings are being achieved.

#### Response

As discussed above, EPA must issue the permit in compliance with State certification conditions. In the response letter dated May 15, 2007, to LANL’s letter of March 7, 2007, about the use of EPA Method 1668A in this permit, Mr. Benjamin H. Grumbles, EPA Assistance Administrator for Water, also cites 40 CFR § 124.53(a).

EPA allows up to two (2) years from the effective date of the permit for LANL to conduct assessments and identify problems and then LANL has about three (3) years after completion of the assessment to comply with the final PCB effluent limitations. EPA believes that LANL has sufficient time to eliminate the PCB sources and meet the final permit conditions prior to the effect of the final PCB effluent limitations.

#### Comment 4

LANL requests not to establish a PCB monitoring requirement at Outfall 051 because the new data has demonstrated “no reasonable potential” and also states that additional sampling will occur when NMED completes assessments for the development of TMDL for PCBs.

#### Response

Because of the persistent nature of PCBs, a monitoring requirement for PCBs at Outfall 051 is established in the final permit to collect more data for further verification of “no reasonable potential.”

#### Comment 5

LANL disagrees with incorporating the effluent limitation guidelines (ELGs) for PCBs at Outfall 001 because the LANL owned power plant is not subject to the guidelines.

#### Response

As discussed above, EPA has established WQ-based PCBs limitations at Outfall 001, instead.

#### Comment 6

LANL agrees that Outfall 13S does not discharge directly to Sandia Canyon but via Outfall 001. Therefore, samples at Outfall 001 will be representative of effluent characteristics from Outfall 13S.

Response

Comment is noted.

Comment 7

LANL disagrees that PCBs shall be monitored if the effluent at Outfall 13S is discharged at other outfalls because the effluent will be treated at the Sanitary Effluent Recycling Facility (SERF).

Response

EPA disagrees with LANL. Monitoring requirement and effluent limitations for PCBs at Outfall 13S shall apply at any other outfall used for discharge of effluent from Outfall 13S until LANL demonstrates that the SERF can effectively remove PCBs to the extent that results are below the “reasonable potential” level.

COMMENTS RECEIVED ON DRAFT PERMIT

Letter, Brian Hanson (Fish and Wildlife Service) to Diane Smith (EPA), dated February 10, 2006.

Letter, Donovan Porterfield to Isaac Chen (EPA), dated February 27, 2006.

Letter, Steven Rae (Los Alamos National Laboratory) to Diane Smith (EPA), dated March 30, 2006.

Electronic Letter, Rachel Conn (Amigos Bravos) to Diane Smith (EPA), dated March 31, 2006.

Letter, J. D. Campbell (Northern New Mexico Citizens’ Advisory Board-NNMCAB) to Miguel Flores (EPA), dated March 31, 2006.

RESPONSE TO COMMENTS

(Comments 1 – 15 were provided by NMED)

Comment 1

For the record, effective June 1, 2006, the University of California will be replaced as laboratory’s managers by Los Alamos National Security, LLC (LANS).

Response

Change is made accordingly.

Comment 2

Parts VIII.D, E, and F of the Fact Sheet were missing.



### Response

The missing bullets were typographical errors.

### Comment 3

NMED requests that EPA clarify the language in the Fact Sheet, Part VIII.C.4, page 15 which states, “[t]he calculated effluent limitations for copper and zinc at Outfall 03A130 are also applied to Outfalls 03A022, 028, 048, 158, and 160.”

### Response

Both copper and zinc are hardness dependant criteria and have partition coefficients to convert the total metal form to dissolved metal and vise versa. In the proposed permit, the hardness values used to calculate effluent limitations at Outfall 03A130 were used to develop the effluent limitation(s) for copper or zinc at other 03A outfalls. Because LANL provided additional effluent hardness data for each outfall during the comment period, reasonable potential for metals was re-evaluated and effluent limitations were re-calculated based on outfall-specific hardness data.

### Comment 4

Fact Sheet, Part VIII.C.5, page 16 states, “[a]cute testing at 100% for *Daphnia pulex*, once per 2 years, is proposed at Outfall 13S if it discharges directly to Canada del Buey.” However, Proposed Permit, Part I.A, footnote \*5, page 8 contains no such limitation on discharge location. NMED suggests that EPA add language to footnote \*5 to clarify WET testing requirements for Outfall 13S.

### Response

A foot note has been added to clarify that acute WET testing is required when a discharge to Canada del Buey occurs.

### Comment 5

Fact Sheet, Part VIII.C.5, page 16 states, [t]he effluent at Outfall 001 is composed of treated sanitary waste and power utility water, chronic toxicity testing at a critical dilution of 100% once every 12 months, is proposed for Outfall 001. However, Proposed Permit, Part I.A, pages 2 and 3 (WET Testing at Outfall 001) lists a 1/3 months frequency. NMED believes that the Fact Sheet is correct and suggests that EPA correct Part I.A.

### Response

Based on the December 16, 2006, “*State of New Mexico Narrative Toxics Implementation Guidance B Whole Effluent Toxicity*” for minor POTWs discharging to perennial waters with a critical dilution  $\geq 10\%$ , EPA agrees the testing frequency shall be 1/12 months. Errors have been corrected.

### Comment 6

EPA should re-examine its reasonable potential data of selenium for Outfall 03A027 and, based on that review, make appropriate corrections either on the Fact Sheet or Proposed Permit, Part I.B. regarding the compliance schedule of selenium at Outfall 03A027.

### Response

Errors were found in the Fact Sheet. The compliance schedule for selenium at Outfall 03A027 in Part II.B. is deleted.

### Comment 7

Proposed Permit, Part I.A, page 14; Part I.A, page 28; and Part I.A, page 30 lists a frequency of one/five years for WET testing for Outfall 05A055, 03A outfalls, and Outfall 02A129, respectively. Per the December 16, 2006, "*State of New Mexico Narrative Toxics Implementation Guidance B Whole Effluent Toxicity*" SWQB requests that EPA add a footnote to this frequency that clarifies that "the test is to be performed As Soon As Possible (ASAP)" and further clarify that this test "should occur in winter or springtime when most sensitive juvenile life forms are likely to be present in the receiving water and colder ambient temperatures might adversely affect treatment processes."

### Response

The final permit requires the test be conducted during the first period of November 1 - March 31 after the effective date of the permit if the WET testing frequency is 1/year or less. If no discharge occurs or is expected during that period, testing shall be taken as early as possible.

### Comment 8

NMED requested that EPA add a footnote to the WET testing at Outfalls 001 and 13S that the test "should occur in winter or springtime when most sensitive juvenile life forms are likely to be present in the receiving water and colder ambient temperatures might adversely affect treatment processes."

### Response

See Response to Comment 7.

### Comment 9

NMED requested that EPA specify in Part I.A, that Outfall 051 be sampled from the end of the effluent pipe in Mortandad Canyon to ensure sampling representative of the nature of the discharge.

### Response

The sampling location issue for Outfall 051 was discussed in the Fact Sheet. EPA reviewed information provided by LANL and determined that cross contamination is not likely to occur after the sample sink and has determined that samples taken at the sample port should be representative of the batch discharge at Outfall 051. Personal safety during inclement weather especially the frozen season was also a concern when the permit writer decided to retain the existing sampling location. Additional sample results were submitted that demonstrated that samples taken at the end-of-pipe did not contain significantly higher concentrations of regulated pollutants than samples taken at the sample port. LANL has taken some corrective actions, and EPA encourages LANL to take more action if necessary, to eliminate any residual remaining in the discharge pipe after each discharge. Because the sample at the sample port is found to be

representative and also because of safety concerns with respect to the end-of-pipe sampling location remain, the final permit retains the proposed sampling location. See comment 55.

#### Comment 10

Because outfalls 03A027 and 03A199 require WET testing using different species than other 03A outfalls and because outfall 03A199 requires chronic toxicity testing rather than acute, NMED requested that EPA establish separate WET testing requirements for those two outfalls.

#### Response

EPA agrees with NMED and has established appropriate WET testing requirements for outfalls 03A027 and 03A199, respectively.

#### Comment 11

The footnote (\*1) for total copper should be footnote (\*2) at Outfall 02A129.

#### Response

Error is corrected.

#### Comment 12

NMED suggested that EPA include a compliance schedule of activities, including reporting requirements for attainment of water quality standards-based effluent limits for total aluminum and temperature in Part II.B. for outfall 001, and that outfall 03A027 be removed from the compliance schedule because effluent limitations for selenium and cyanide were not established at outfall 03A027.

#### Response

EPA agrees with NMED's suggestions and changes have been made as requested.

#### Comment 13

NMED requested that EPA remove the TRC MQL language from the Proposed Permit, Part II.A.

#### Response

EPA is establishing an MQL for TRC in all to-be-issued NM permits. The "No Measurable TRC" language is deleted from footnote.

#### Comment 14

Part II.J. WET testing methodologies in the proposed permit do not apply to outfalls 03A027 and 199. Both of these outfalls require testing using different species than other 03A outfalls and 03A199 requires chronic toxicity testing rather than acute.

#### Response

Appropriate WET language has been added to Part I and II of the permit for outfall 03A027 and 03A199, respectively.

#### Comment 15

Because EPA is in the process of reviewing and updating the list of MQLs and the revised list of MQLs is likely to be issued in the near future (i.e., within the term of this permit), NMED suggested that EPA amend the requirement such that upon written notification from EPA, any changes to the MQLs would become effective for the remainder of the term of the permit.

#### Response

EPA believes that the issue of addressing MQL updates in permits would best be administered through procedural changes not on a permit by permit basis. EPA does not want to make administrative changes without a complete review of our procedures and options. EPA acknowledges the intent of the comment and will review our policies on this issue. EPA is not making any changes in this permit with respect to this comment.

(Comment 16 was provided by USFWS)

#### Comment 16

The U.S. Fish and Wildlife Service (FWS) provided an article, "Immune and Growth Response of Western Bluebirds and Ash-throated Flycatchers to Soil Contaminants," Ecological Applications, 13(6), 2003, an NMED "Additional Fish Consumption Advisories Announcement," January 6, 2006, and a 2004-2006 State of New Mexico 303(d) list which includes certain water segments within the LANL property.

#### Response

EPA reviewed the above information and evaluated FWS's concern about the potential accumulation of PCBs and other contaminants in fish collected from Cochiti Reservoir that provides habitat for bald eagle and southwestern willow flycatcher.

EPA understands that discharges from existing outfalls may contribute some degree of pollutants to the soil, but under the NPDES authority EPA can only regulate the quality of discharge to the extent of EPA approved State water quality standards (WQS). In this case, EPA, based on the CWA 401 certification as described in the Fact Sheet, applied the most stringent State approved WQS to all the discharges. As a result the discharges in this permit must either meet or demonstrate no reasonable potential to exceed the WQS at the end-of-pipe without dilution in most cases. Therefore, this permitting action will improve the discharge quality and be more protective to wildlife and aquatic life. This permitting action does not authorize any new discharge to the environment. EPA does not have authority through this permitting action to require the discharger to retrofit or recover the quality of soil or water pathway. The clean-up of contaminated soil is under the authority of the Resource Conservation and Recovery Act (RCRA).

Regarding the potential accumulation of PCBs and other contaminants in fish collected in Cochiti Reservoir or in Rio Grande, advisories have been issued for waters that are both up gradient (i.e., Abiquiu Reservoir) and down gradient of LANL (i.e., Cochiti Reservoir). To address the concern of PCBs, the final permit will add effluent limitations or monitoring requirements for PCBs. The PCB criteria for wildlife habitat has not been changed since 2000, and EPA believes that such criteria is also protective to both bald eagle and southwestern willow flycatcher.

The final permit meets the requirements to address water impairments as designated by the State's 303(d) list. The final permit does not authorize new discharges to any stream and the permit complies with State antidegradation policy. Conditions set forth in the permit provide the maximum protection under the current State WQS prior to an approved total maximum daily load (TMDL) being developed. NMED certified the proposed permit and the final permit incorporates all conditions required by the State certification.

EPA's determination of "no adverse effect" was based on the baseline of the previous consultation conducted in 2000 and information available to EPA during the development of the proposed permit. Most changes of the permit conditions are either due to the more stringent EPA approved 2005 WQS or because of "no reasonable potential" caused by the discharges. The permit also establishes whole effluent toxicity (WET) testing requirements as a biological assessment of the toxic impact of discharges on receiving waters. The final permit establishes PCB limitations to protect wildlife habitat and requires the permittee to correct PCB problems.

Because there are no new federally listed endangered species in the area, the quantity of waste water authorized to be discharged under this permit is less than the quantity allowed by the 2000 permit and this permit contains more stringent permit conditions than those contained in the 2000 permit, EPA has determined that the reissuance of this permit will not cause adverse effect to endangered species in the area based upon the 2000 consultation baseline.

Due to the concerns raised by the FWS, EPA began an informal consultation under ESA Section 7(a)(2) to address the potential impact of this permitting action on federally listed endangered species. Because the consultation process may take extensive time to complete, EPA and FWS agree that it will serve environmental benefit to issue the final permit with the more stringent and protective conditions and with a reopener clause to modify the permit if additional permit requirements are needed as a result of the informal consultation.

(Comments 17 – 24 were provided by a citizen)

Comment 17

Gross alpha, gross beta, and uranium are not included in the permit.

Response

EPA has evaluated effluent data to ensure that the quality of the discharges meet State designated uses for the receiving waterbodies. Under certain situations, for instance, when a discharge has no reasonable potential to exceed an applicable criteria (e.g., gross alpha), no water quality criteria was established for a particular pollutant (e.g., gross beta), or a criteria is not established to protect the designated uses of the receiving stream (e.g., uranium is for domestic water supply use), the discharge is not required to monitor those pollutants which are not of concern to the designated uses of the receiving stream.

Comment 18

Many man-made radionuclides may be released by LANL and the regulatory basis for the omission of those radionuclides should be addressed in the Fact Sheet.

Response

EPA understands that the potential release of radionuclides from LANL is a concern to environment and human health. The Fact Sheet addresses those pollutants that can be regulated under the NPDES authority and that were detected in the discharge above the reasonable potential level.

Comment 19

Given the potential for discharge at outfall 051 to contaminate groundwater, the monitoring frequency for radionuclides should be at least monthly, i.e., not yearly.

Response

The final permit retains effluent limitations and monitoring requirements for Radium 226 and 228 from the 2000 permit because of the nature of the discharge. A monitoring frequency of once per year was assigned because of the “no reasonable potential” determination for exceedance of surface water quality standards. Monitoring requirements for tritium have been deleted from the permit because tritium is not a “pollutant” as defined under the Clean Water Act (see Comment 48.)

Comment 20

It would be helpful if a discussion of distinction between “reactor-produced” and “accelerator-produced” tritium was given in the Fact Sheet.

Response

Comment noted. Monitoring requirements for tritium have been deleted from the permit because tritium is not a “pollutant” as defined under the Clean Water Act (see Comment 48.)

Comment 21

Method ANC335, R-1 is not an EPA approved method and Methods 904.0 and 903.1 do not utilize gamma spectroscopy.

Response

Method ANC335 has been deleted and the term “Gamma Spectroscopy” has been deleted from descriptions of Method 904.0 and 903.1.

Comment 22

The permit should require DMRs be made available on a searchable web site.

Response

Comment noted. Citizens may contact LANL for such availability.

Comment 23

Two typographical errors were found in Appendix.

Response

Comment noted.

#### Comment 24

The permit does not specify whether samples would be filtered prior to analysis.

#### Response

All pollutants listed in the permit to be tested for are in a form of “total” or “total recoverable.” This means that all samples are unfiltered.

(Comments 25 – 37 were provided by Amigos Bravos and other groups)

#### Comment 25

The numbering of the outfall locations is extremely confusing. The 17 outfall locations are given numbers such as 13S, 001, and 05A055. The permit should require that the technical area be added to the outfall number. Clarifying the outfall numbers will help the public better understand the permit and track Discharge Monitoring Reports (DMRs).

#### Response

In the proposed permit, descriptions of technical areas were given under each associated outfall number so the public may refer each outfall to its associated technical area(s).

#### Comment 26

The effluent limits in the draft permit for metals are given as totals whereas the New Mexico Water Quality Criteria are expressed as dissolved. This makes it difficult to determine if the effluent limits and the actual discharges reported on DMRs are protective of State water quality standards. To make it even more difficult, for a number of metals, a calculation using the hardness of the receiving water is needed to get to the dissolved criteria. The effluent limits are expressed as both  $\mu\text{g/L}$  and  $\text{mg/L}$  at the same outfall. Some parameters have effluent limits in  $\mu\text{g/L}$  at one outfall and  $\text{mg/L}$  at others.

#### Response

By federal regulation, EPA needs to establish “total recoverable” metals instead of “dissolved” metals in the permit. Total recoverable metal limitations are more stringent than dissolved metal limitations. The hardness-dependent metal criteria are established by the State’s water quality standards. In certain cases, it is necessary and appropriate to use various units to properly specify the effluent limitations. To address the commenter’s concern, the unit of  $\text{mg/l}$  is used for limitations greater than  $10 \mu\text{g/l}$  in the final permit.

#### Comment 27

Several Pueblos are located near LANL, including the Pueblo de San Ildefonso, Santa Clara and Cochiti. Santa Clara Pueblo has developed federally approved water quality standards and the other pueblos are in the process of developing their own. Santa Clara Pueblo’s standards must be taken into account in order to protect wildlife that may be used by the Santa Clara Pueblo people for ceremonial uses. Therefore, Santa Clara Pueblo should be granted tribal §401 certification authority for the draft permit. And, the permit should be re-written to be protective of the water quality standards, whether they are federally approved or not, of all three Pueblos surrounding LANL.

### Response

EPA addressed the 401 Certification issue in the Fact Sheet. A Tribe, which is treated in the same manner as a State for purposes of the water quality standards program, may be the 401 certifying authority for discharges originating on Indian Lands. 40 C.F.R. § 131.4(c). Although Santa Clara Pueblo has developed federally approved water quality standards, the discharges at issue originate on State of New Mexico, not Pueblo land, and Santa Clara Pueblo is not adjacent to any stream where discharges are proposed to be authorized. Neither San Ildefonso nor Cochiti Pueblo has submitted WQS for approval at this time. Therefore, the State of New Mexico is the appropriate certifying agency.

### Comment 28

The discharge permit must require joint and severable liabilities among the applicants. The proposed discharge permit is addressed to the Department of Energy (DOE) and the University of California (UC), but it does not indicate which of those entities is responsible for what actions under the permit. The permit must be issued to the DOE and UC for operations at LANL.

### Response

The DOE and Los Alamos National Security (LANS) are co-permittees of this permit so both entities are responsible for complying with all the permit requirements.

### Comment 29

The draft permit as it stands now does not require LANL to take monitoring samples at TA-50 (outfall 051) from the location where their discharge is released into the environment in Mortandad Canyon. Rather, LANL is allowed to sample in the sink in the TA-50 building. And, the permit should require that sampling of all outfalls, including discharge 051, 001 and 13S, occur where the discharges are actually released into the environment and not at some point in transit to the actual outfall location.

### Response

Samples are required to be taken at a point after the last treatment unit prior to discharge to the environment. Also, see Comment 55 and Response to Comment 9.

### Comment 30

The draft permit is written to protect acute aquatic life criteria, but not the more sensitive chronic aquatic life criteria. The permit must be protective of both.

### Response

The permit conditions were developed to protect the State's designated uses for the receiving waterbodies. Issues of designated uses should be addressed to NMED.

### Comment 31

The limits for COD, BOD, and Ammonia, at the STP outfalls (including but not limited to outfalls 001 and 13S) should be Water Quality Based Effluent Limits, not Technology Based



Effluent Limits. The COD limit at outfall 051 is very high (125 mg/L)– These levels of COD in a small stream will zap out all the dissolved oxygen (DO).

#### Response

There are no State approved water quality criteria for BOD or COD, therefore water quality-based limitations cannot be established directly. The State does have criterion for DO that apply to these streams. In general due to the nature of the topography, reaeration occurs quickly in these types of streams and consequently DO has not been documented as an issue. No information is available to indicate that the DO criterion is not being met; therefore, EPA believes that the required limitations are sufficient to protect the designated uses.

#### Comment 32

TSS limits should be based on the assimilative capacity of the stream. Many streams in New Mexico are impaired for stream bottom deposits/siltation and therefore TSS effluent limits should be water quality based and not, as they are in this permit, technology based. The background number of 6.4 mg/l used at Outfall 001 should be used to calculate water quality based TSS effluent limits until a TSS water quality standard is developed by the State of New Mexico.

#### Response

Canyons located in LANL are not impaired due to TSS. As the commenter noted, the State of New Mexico does not have approved water quality criteria for TSS, therefore water quality-based effluent limitations cannot be established. Narrative portions of the NPDES permit prohibit “visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life”.

#### Comment 33

Effluent limits and monitoring requirements for a large percentage of the parameters included in the 2000 permit have been removed from the draft permit. The discharges from LANL are dangerous enough to merit mandatory monitoring and effluent limits for many of the parameters that the EPA is proposing to remove. The commenter also mentioned that an elevated concentration of chromium-IV was detected in well water in Los Alamos County and two communities are down stream from LANL discharges. Therefore, precautionary monitoring for those pollutants is necessary.

#### Response

As discussed in the Fact Sheet, the removal of monitoring requirements was based on demonstrations of “no reasonable potential” using data from the past two terms of the permit. Effluent data have demonstrated no reasonable potential to exceed chromium standards. Also see Response to Comment 42.

#### Comment 34

There should be PCB effluent limits and monitoring requirements added to all outfalls of the permit.

Response

For discharges that may contribute PCBs, please see the response to State certification condition 3. For those which do not have reasonable potential to discharge PCBs, it is not EPA's practice to establish monitoring requirement for pollutants that show no reasonable potential.

Comment 35

The new copper, aluminum, and pH effluent limits proposed in the draft permit should apply immediately.

Response

The federal regulations allow a reasonable compliance schedule for the discharger to identify the sources and to rectify or develop treatment strategies to allow compliance with the water quality-based effluent limitations.

Comment 36

Margins of safety (MOS) must be added to the draft permit. The current draft of the permit does not take into account MOS. For example, the discharge limit for chlorine at outfall 001 is set right at the standard, which does not take into account a margin of safety.

Response

Margin of safety is not a term applied to NPDES permits. However, EPA used a reasonable potential analysis that establishes conservative estimates to determine the need for effluent limitations and monitoring requirements. Under this analysis, if the average of sample analytical results is greater than the criteria divided by 2.13, it requires a permit limitation. It has been determined that this approximates the 95% confidence level. Therefore, allowances for uncertainty have been applied to the development of water quality-based effluent limitations.

Comment 37

The commenter had questions regarding outfall 03A027 and did not receive answers from LANL and also has concern about pharmaceutical contaminants in general.

Response

EPA has screened effluent data against State WQS and based on the results of this screening has developed the permit conditions. The State has not adopted criterion for pharmaceutical contaminants.

(Comment 38 – 46 were provided by NNM CAB)

Comment 38

NNM CAB recommended that oil & grease and a general no visible sheen requirement be added to outfall 001 and or 13S.

Response

A general requirement for no visible sheen was added to all discharges.

Comment 39

Pu and U should be monitored at Outfall 051.

Response

Neither Pu nor U have applicable WQS for the established designated uses for the receiving stream where outfall 051 is located.

Comment 40

Test for perchlorate should be once per month at Outfall 05A055 (High Explosives area).

Response

The analytical results demonstrated that the concentration of perchlorate at outfall 05A055 has no reasonable potential to exceed the best professional judgment (BPJ)-based effluent limitation; therefore, a monitoring frequency of 1/year is appropriate.

Comment 41

“Other waste water” described for all outfalls 03A effluents should be changed to “other treated wastewater” or the sources of other waste water should be identified.

Response

“Other wastewater” may include floor drains, fire suppression water, storm water, and/or other small amounts of wastewater. “Other wastewater” varies by outfall. Detailed descriptions of “other wastewater” may be found in the application. There are no effluent limitation guidelines available for those wastewaters. Therefore, it is reasonable to regulate the quality of the combined effluent at each outfall.

Comment 42

In view of the uncertainty surrounding the high levels of chromium in well R-28, NNM CAB recommended to continue the testing requirements for chromium at Outfalls 03A021, 03A022, and 03A181.

Response

Effluent limitations were established based on the reasonable potential to exceed State WQS. The chromium concentrations reported for Outfall 03A021, 022, and 181 were 6.1 µg/l, 4.3 µg/l, and 11.5 µg/l, respectively, which were much lower than the State domestic water supply criteria as well as the National Primary Drinking Water’s maximum contaminant level goal of 100 µg/l. Also, the receiving streams are not designated for domestic water supply use.

Comment 43

Reporting requirements for cyanide were not established at Outfalls 03A048 and 158, but cyanide was required for monitoring at these two outfalls.

Response

Monitoring requirements for cyanide were clerical errors and have been deleted.

Comment 44

Radionuclides, or at least tritium, are tested at the once-through cooling water at Outfall 02A129.

Response

Because effluent data showed no reasonable potential, no monitoring requirement is required. Also see Response to Comment 48.

Comment 45

Shouldn't the list in Part I.B. include all constituents identified in Part I.A.?

Response

Part I.B. gives the compliance schedules for newly established water quality-based effluent limitations. The permittee is required to comply with effluent limitations for constituents not listed in Part B on the effective date of the permit.

Comment 46

Shouldn't the MQL list under Part II.A include all the constituents listed in Part I that have a concentration limit?

Response

Part II.A lists available minimum quantification levels (MQLs) for many, but not all non-conventional pollutants. If an MQL was not established for a specific constituent, the permittee must report the analytical result.

(Comments 47 - 75 were provided by LANL)

Comment 47

EPA should not include effluent limits in the permit based on the water quality standards (WQS) approved by the New Mexico Water Quality Control Commission (WQCC) in 2005. To date, the WQS have not been approved by EPA. They have been challenged in a pending appeal to the New Mexico Court of Appeals, *New Mexico Mining Association et al. v. Water Quality Control Commission*, filed June 22, 2005. The standards have not yet been approved, consequently they are not yet the water quality standard under the Clean Water Act. Therefore, they are not "applicable requirements" which the permit must meet under section 402 (33 USC 1342).

Response

The basis to apply the State approved 2005 WQS was based on State pre-certification letter which was addressed in the Fact Sheet. EPA has approved the 2005 WQS on December 29, 2006. All disputes related to the conditions of State certification shall be made through the applicable procedures of the State (40 CFR 124.55(e)).

Comment 48

The Laboratory recommends EPA delete all language (definition, permit limits, footnotes, etc.) regarding tritium requirements in the proposed permit. The Energy Policy Act of 2005, section 651(e)(1), amends the Atomic Energy Act to include accelerator-produced radioactive material in the definition of "byproduct material." Thus, tritium and other isotopes produced for research purposes at the Laboratory are byproduct material under the AEA (see 42 USC 2014(e)). They

are therefore no longer within the definition of "pollutant" for purposes of the Clean Water Act, and are not regulated under the Clean Water Act.

Response

Effluent limitations and monitoring requirements for tritium are deleted from the permit. Because discharges not associated with reactor or accelerator byproducts are unlikely to contribute an amount of tritium that may have a reasonable potential to exceed State WQS, no conditions are established to monitor tritium.

Comment 49

The Laboratory has been using EPA approved computer, self-generated DMR forms, since February, 1999, which replicate EPA Form 3320-1. The Laboratory requests a 90 day period from the permit effective date to develop new DMR forms for EPA review and approval.

Response

LANL needs to work with EPA Region 6 Water Enforcement Branch for DMR forms and any other questions regarding compliance with the conditions of this permit. The final permit does not grant a compliance period for development of self-generated DMRs.

Comment 50

Please add an additional footnote with the following MQL language to all outfall categories (except NPDES Outfall 05A055): *"If any individual analytical test results is less than the minimum quantification level (MQL) listed at Part II. A of the permit, a value of zero (0) may be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements"*. This is consistent with the Laboratory's existing NPDES Permit and makes permit reporting requirements less confusing.

Response

It is not necessary to duplicate the statement of Part II.A for each outfall. The MQL language in Part II.A applies to all applicable monitoring requirements listed in Part I of the permit, unless otherwise noted.

Comment 51

Please clarify Whole Effluent Toxicity Testing's 30-Day Avg. Min and 48-Hr. Min. requirements. Please add definitions for these monitoring requirements.

Response

"48-Hour Min" refers to the Discharge Monitoring Report (DMR) reporting requirements for 48-Hour Acute toxicity testing. The DMR will contain the appropriate reporting codes for the 48-Hour Acute tests required by the permit. The "MIN" designation is used because the reported value should be the lowest test result (the No Observed Effect (NOEC) value for survival) for the test(s) performed for each organism during the monitoring period. Usually there is only one test required, per test species, during the reporting period. In that case, the same values would be reported for both the 48-Hour Min and 30 Day Avg. Min requirements.

However, if the effluent demonstrates an unacceptable level of toxicity (i.e., there is significant mortality at the critical dilution and/or lower effluent dilutions) additional testing is required during the monitoring period. When the additional testing is performed, test results are often different. In that case, *only for the purpose of reporting*, the NOEC values for survival may be averaged and reported under the DMR heading of "30 Day Avg. Min." In this case, there would be different values reported for the 48-Hour Min and 30 Day Avg. Min requirements.

No further definitions for these reporting requirements are added to the permit.

#### Comment 52

The Whole Effluent Toxicity Testing requires a 3-Hr composite for NPDES Outfalls 051, 05A055, 02A129, 03A021, 03A022, 03A027, 03A028, 03A048, 03A113, 03A130, 03A158, 03A160, 03A181, 03A185 and 03A199. All flows from these outfalls are intermittent and do not flow continuously for three hours. Therefore, we recommend the sampling type be changed from 3-Hr composite to grab sample requirements.

#### Response

NMED requires composite samples for WET testing. A revised 3-hour composite sampling provision has been added to Part II.C to address a short discharge duration.

#### Comment 53

In footnote \*1 for all outfalls concerning TRC the footnote states that NO MEASURABLE TRC at any time, yet in the PART II other conditions under paragraph A. MINIMUM QUANTIFICATION LEVEL (MQL) state that if any analytical test result is less than the MQL listed below (100 µg/L for TRC), a value of zero (0) may be used....The wording appears to contradict itself and is confusing. Please clarify this language in the draft NPDES Permit or delete footnote \*1 for TRC.

#### Response

The "No Measurable TRC" footnote language is deleted.

#### Comment 54

Public comments brought up during the EPA Public Meeting on March 20, 2006, requested that EPA include perchlorate and plutonium limits in the Laboratory's NPDES Permit. There are currently no existing New Mexico water quality criteria for perchlorate or plutonium. Additionally, plutonium is included within the definition of special nuclear material in the Atomic Energy Act (42 USC 2014 (aa)). Therefore, it does not fall within the definition of "pollutant" for purposes of the Clean Water Act, and is not regulated under the Clean Water Act. Accordingly, effluent limits should not be developed or incorporated into the NPDES Permit for plutonium or perchlorate.

#### Response

Comment noted.

#### Comment 55

The issue of representative sampling at TA-50 RLWTF (NPDES Outfall 051) was brought up during the March 20, 2006, EPA Public Meeting. The Laboratory has provided documentation to EPA that addresses these concerns. Corrective actions completed to date include a new discharge pump and pipe work installed in the WM-2 pump house, installation of a new sample pump and tubing to the Room 116 sample sink, and changing the effluent discharge to utilize the 3 inch diameter cross-country line. The Laboratory and NMED collected split samples simultaneously at the TA-50 NPDES sampling sink (Room 116) and at the NPDES outfall on January 9, 2006. Sampling data was provided to EPA on March 17, 2006. Sampling results indicated that NPDES Permit compliance parameters were not significantly different between the sampling sink and the outfall. AEA regulated radiological data was slightly higher at the outfall but within DOE Derived Concentration Guidelines (DCGs). This may be due to standing water remaining in the pipeline between batch flow discharges. Up to 150 gallons of treated effluent may remain in the line based on pipe length and diameter. Potential corrective actions are being evaluated to address this concern. Additionally, there are access and safety issues with sampling at the outfall during the winter season. The access road to the outfall is steep and often becomes icy and dangerous to access. The Laboratory recommends continued sampling at the Room 116 sampling sink due to these access and safety issues.

Response

See response to Comment 9.

Comment 56

The Laboratory has provided supplemental hardness data for all outfalls included in the draft NPDES Permit. The hardness data was calculated from Level 4 data packages using NPDES Re-Application data and yearly 2005 Discharge Monitoring Report (DMR) data, and from additional samples collected in February, 2006, and March, 2006.

Response

The information provided by LANL was used to re-evaluate reasonable potential and re-calculate outfall-specific water quality based effluent limitations. Application of the new information resulted in the following changes:

<u>Outfall No.</u>	<u>Pollutant</u>	<u>Daily/Monthly Limits (µg/l) Change</u>		
001	Zinc	175.1/116.8	to	None
13S	Zinc	146.7/97.8	to	None
051	Copper	12.9/8.6	to	0.2/0.14
051	Zinc	None	to	3.3/2.2
03A022	Copper	12.4/8.3	to	28/19
03A130	Copper	12.4/8.3	to	37/25
03A130	Zinc	131/87.3	to	None
03A048	Copper	12.4/8.3	to	31/21
03A158	Copper	12.4/8.3	to	19/12
03A160	Copper	12.4/8.3	to	32/22

03A160	Zinc	131/87.3	to	None
02A129	Copper	12.4/8.3	to	2.4/1.6

Comment 57

NPDES Permit cover-page. Please specify which perennial and/or ephemeral/intermittent canyons reaches are located in water body Segments Nos. 20.6.4.126 and 20.6.4.128.

Response

Change was made as requested.

Comment 58

Please delete the Monthly Average effluent limit for Total Residual Chlorine (TRC) at Outfall 001 to be consistent with other TRC limits in the permit (i.e. keep Daily Max requirement only). Based on the compliance history at Outfall 001 and the DMR summary submitted in the Laboratory's 2004 Re-Application, the Laboratory recommends TRC monitoring frequency of 1/week be changed to 1/month.

Response

The monthly average limit for TRC has been deleted. Monitoring frequency 1/week for TRC is representative and appropriate. In the Fact Sheet, EPA explained how the monitoring frequencies were established. No changes to monitoring frequency have been made in response to this comment.

Comment 59

The effluent limitation for total aluminum (Al) in the draft permit for Outfall 001 (Power Plant wastewater) is 58 µg/l (monthly average) and 87 µg/l (daily maximum). However, the water quality standards (WQS) define 87 µg/l of *dissolved* aluminum as a *chronic* standard, intended to avoid impacts from long term exposure (see 20.6.4.900.J). Accordingly, the draft permit should be revised to make 87 µg/l the monthly average, and use the acute stream standard of 750 ug/l for the daily maximum (See 20.6.4.900 J) to address the short term exposure impacts.

Response

The establishment of effluent limitations is in accordance with the procedures specified in the Implementation Guidance for State WQS as described in the Fact Sheet.

Comment 60

Page 4 of Part I. A., Outfall 001, Sampling Locations and Other Requirements, states in part: *"PCBs... There shall be no discharge of PCB compounds such as those commonly used for transformer fluid from power plant operation sources to Outfall 001."* Page V-9 of the Laboratory's Form 2c NPDES Re-Application documents the presence of PCBs 1242, 1254, 1248, and 1260 based on sludge data showing residual low levels of PCBs at the TA-46 Sanitary Wastewater System (SWWS) Facility. Treated effluent from the TA-46 SWWS Facility discharges through Outfall 001 when the treated effluent is not re-used in cooling towers at Technical Area 3. The Laboratory recommends EPA delete this paragraph and incorporate monitoring and reporting requirements on Page 1 of Part I. Alternatively, EPA could incorporate the following language: "The effluent shall contain NO MEASURABLE PCBs. NO



MEASUREABLE will be defined as no detectable concentrations of PCBs as determined by any approved method established in 40 CFR 136.” To date, NPDES compliance effluent data has not documented the presence of PCBs using 40 CFR 136 analytical methods.

Response

The previously proposed BPJ-based narrative prohibition of PCBs is deleted from the permit. Instead, monitoring requirements and effluent limitations for PCBs are established at outfall 001 consistent with the State certification. See response to State Certification Condition 3.

Comment 61

LANL requests an extension of the compliance schedule from 6 months to two years for pH and from 3 years to 6 years for other pollutants.

Response

EPA regulations require that the discharger complies with the final effluent limitations as soon as possible. EPA believes that the proposed compliance schedules are reasonable. No changes were made.

Comment 62

The Laboratory recommends that EPA modify footnote \*5 to require bio-monitoring (48 Hr. Static Renewal Test) at Outfall 13S, only if Outfall 13S discharges directly into Canada del Buey as stated in Section 5, paragraph 4, page 17 of the Fact Sheet.

Response

This modification was made.

Comment 63

Page 11 of Part I, Outfall 051, Discharge Limitations/Reporting Requirements. The radioactive liquid wastewater (RLW) system does not add chlorine as part of its treatment processes, or in its collection system other than rinse water. The TRC results should have been reported as zero on the 2004 Permit Re-Application because it was below the minimum quantification level (MQL) and the QC spike indicated matrix interference.

Response

This request is denied. TRC was believed present in the discharge as marked in the application and reported as 30 µg/l.

Comment 64

The HEWTF batch discharges, at outfall 05A055, approximately 3,000 gallons every other month. The Laboratory recommends the monitoring requirements for pH (1/week), RDX (2/month) and flow (1/day) be revised to 1/month based on DMR flow summary, this outfall's excellent compliance record, and intermittent discharge characteristics (batch flow).

Response

The permittee does not need to take any sample for RDX analysis if no discharge occurs for the monitoring period, nor do they need to take the second sample if only one discharge occurs within the month. The permittee should mark NA on the DMR for months in which there is no discharge. No change is made.

Comment 65

Outfall 03A113 does not discharge into stream segment 20.6.4.126 of Sandia Canyon. Please clarify that NPDES Outfalls 03A027 and 03A199 discharge into stream segment 20.6.4.126, and NPDES Outfall 03A113 discharge into the ephemeral/intermittent stream segment 20.6.4.128.

Response

Corrections were made in the final permit.

Comment 66

The PHERMEX facility is no longer occupied and the cooling tower that supported this facility (Outfall 03A028) has been taken out of service. The Laboratory recommends Outfall 03A028 be deleted from the draft NPDES Permit.

Response

Outfall 03A028 is deleted from the final permit. Discharge at this outfall is no longer authorized.

Comment 67

The draft permit has incorporated total cyanide limits of 3.5 µg/l (monthly average) and 5.2 µg/l (daily maximum) for outfalls 03A130 and 03A185. The EPA Permit Writer requested additional information for cyanide, weak acid dissociable based on analytical interferences in the methods used in the permit re-application process. This information is tabulated and includes the cyanide result using method 4500 CN-I for Outfall 03A130. Based on the new data there is no reasonable potential for cyanide to exceed the water quality standard at Outfall 03A130 and 03A185. Please delete the total cyanide effluent limit and monitoring requirement from the draft permit.

Response

EPA reviewed the additional information requested by LANL and disagrees that there is no reasonable potential for cyanide to exceed the WQS at Outfalls 03A130 and 03A185. EPA determined that these discharges have reasonable potential to violate WQS based on all data available. Limitations for cyanide are retained in the permit.

Comment 68

NPDES Outfall Permit 03A048 is associated with TA-53-964 and 979. Please delete reference to TA-53-963 and 978 in the proposed permit.

Response

Changes have been made as suggested.

Comment 69

The Laboratory requests the exceedance determination (sub-tier a.) [under Part I.B. Schedule of Compliance for metals] be changed from 6 months to 12 months and development requirements for controls (sub-tier b.) be changed from 1 year to 18 months based on the complexity of these facilities and worker authorization processes. Please add language to sub-tier c. to include “unless otherwise specified in permit” to the end of the sentence based on Permit Specific Comments on Schedule of Compliance.

Response

Compliance schedules specified in sub-tier a and b have been changed according to the request; however, please note that the final date has not been affected.

Comment 70

The DMR submittal date of the 28<sup>th</sup> day was negotiated between the Laboratory, New Mexico Environment Department (NMED), and EPA’s Enforcement and Permits Branches during the last permit process period (2000-2005) in order to assure that results from samples collected during the month be available for including in the monthly DMRs. Submittal by the 28<sup>th</sup> day of the following month was also required to allow adequate time for quality assurance of the data. The Laboratory requests that the 28<sup>th</sup> day of the month be included in the new permit to allow the Laboratory to receive all NPDES compliance data back from the analytical laboratory and complete all quality assurance reviews in time to meet the NPDES Permit submittal deadline.

Response

The final permit retains the “28<sup>th</sup> day” submitted date.

Comment 71

It is the Laboratory’s understanding, that EPA rates all facilities on a point system to determine if the permittee is a “Major” or “Minor” treatment facility. The Laboratory requests clarification regarding its classification as a “Major discharger.” Please provide the criteria for this determination.

Response

EPA uses the “NPDES Permit Rating Work Sheet” to determine major/minor classification. This document rates discharges based on six factors, which are toxic pollutant potential, flow/stream flow volume, conventional pollutants, public health impact, water quality factors, and proximity to near coastal waters. LANL’s score in relation to 5 of the 6 factors placed it in the “major” category.

Comment 72

The Laboratory requests that MQLs be specified for sulfite, phosphorus, Oil and Grease, RDX, TNT, nickel, Ra 226+228, COC, BOD, TSS, TTOs, perchlorate, and iron in the draft permit.

Response

The MQL for nickel has been added to the final permit. When a MQL has not been developed by EPA R6, the permittee must report the analytical results on DMRs. LANL may develop MQLs for the above pollutants in accordance with the procedure provided in Part II.A. of the permit and submit these proposed MQLs to EPA Region 6 for approval.

Comment 73

On June 1, 2006, the University of California will no longer operate the Los Alamos National Laboratory. The permit will be transferred to Los Alamos National Security (LANS) LLC. The Laboratory will provide written notification to EPA as required by the NPDES Permit.

Response

Los Alamos National Security (LANS) LLC is listed as the new co-permittee.

Comment 74

Method ANC335, R-1 (Tritium in Environmental Matrices--Distillation and LS Counting) is a method used by the Laboratory's Analytical Chemistry Sciences Group. This internal Group is no longer performing tritium analyses for the Laboratory, so this method should be deleted from the draft permit. EPA Method 906 should be added for tritium analysis if tritium "report only" remains in permit.

EPA Methods 904.0 and 903.1 are not gamma spec methods and this descriptor should be removed. These methods are currently being used for radium analyses. EPA Method 904.0 is used for Ra228 and EPA Method 903.1 is used for Ra226.

Due to some recent interference problems experience by the contracted analytical laboratory on an RDX sample, LANL requests to use SW 846 Method 8330A, instead of Method 8330, for RDX and TNT analyses. (E-mail dated 6/9/2006)

When analyzing for selenium using EPA Method 200.8, if bromine is present in the sample, a false positive detection of selenium can occur. LANL requests that the alternate EPA-approved SW 846 Method 7742 may be used for selenium analysis.

Response

After consulting with EPA Headquarters on Method 8330A, Method 8330A has been added for RDX and TNT tests. EPA-approved SW 846 Method 7742 may be used for selenium analysis. Also see response to comment 21.

Comment 75

The Laboratory disposes of its sludge off-site. Most of the boiler-plate language in Part IV of the draft permit does not apply. The Laboratory recommends that the sludge language be revised to address off-site disposal only.

Response

The permittee may select those elements and sections applicable to the facility as stated at the beginning of the Part IV for Sewage Sludge Requirements.