

NPDES PERMIT NO. NM0028355

FACT SHEET

MODIFICATION OF NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

PERMITTEES:

Los Alamos National Security, LLC
Management Contractor for Operations
Los Alamos, New Mexico 87545

and

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

ISSUING OFFICE:

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PERMIT ACTION:

Proposed modification of NPDES Permit No. NM0028355, issued by EPA on August 12, 2014.

DATE PREPARED:

December 5, 2014

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of October 1, 2014.

STATE CERTIFICATION: The draft permit modification has been forwarded to the New Mexico Environment Department (NMED) for certification in accordance with Section 401 of the CWA and regulations promulgated at 40 CFR 124.53. The draft modified permit and public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service; and to the National Marine Fisheries Service prior to publication.

I. BACKGROUND AND BASIS FOR MODIFICATION

On August 12, 2014, EPA Region 6 issued NPDES Permit No. NM0028355 (“the Permit”) to co-permittees Los Alamos National Security, LLC (LANS) and the U.S. Department of Energy (“DOE”) for discharges of treated wastewaters from eleven (11) outfalls located at the Los Alamos National Laboratory (LANL) facility in Los Alamos County, NM.

On September 15, 2014, LANS and DOE (“Petitioners”) filed a Petition for Review of the Permit with the EPA Environmental Appeals Board (EAB) under 40 CFR 124.19(a). The petitioners’ challenge that the basis for imposition of monitoring and sampling requirements for selenium at permitted Outfall 03A048 is erroneous.

By letter to the EAB dated November 21, 2014, the Region provided notice, as required by 40 CFR §§ 124.16(a)(2)(ii) and 124.60(b), of the conditions of the Permit that are uncontested and severable from the Permit conditions contested in the Petition for Review. Under 40 CFR §§ 124.16(a)(2)(i), these uncontested and severable conditions of the Permit as issued become fully effective 30 days from the date of the letter or on December 19, 2014.

EPA and the petitioners filed a joint request on October 21, 2014, to ask EAB to stay the proceedings of petition so that EPA and the petitioners may delete the contested permit conditions through Region 6’s modification of the permit. Modification of the Permit will allow the parties to resolve the Petition for Review and finalize the terms and conditions of the Permit without the expense and delay of continued litigation. EPA believes the proposed modification is consistent with the CWA and federal regulations and that modification of the Permit is in the best interest of EPA, the permittees and the public.

Because permittees have also requested clarification/modification of some permit conditions in their mail and emails dated September 11, 2014, September 15, 2014, and September 24, 2014, respectively, EPA is addressing those issues here. Modification of the permit is authorized under 40 CFR 122.62.

II. CLARIFICATION/MODIFICATION REQUEST RESPONSE

A. Petition Issue

Monitoring Requirements and Effluent Limitations for Selenium at Outfall 03A048: The draft permit proposed effluent limits and corresponding monitoring requirements for selenium at Outfall 03A048 based on a determination that there was a reasonable potential (RP) for selenium to cause or contribute to an excursion above state water quality standards. During the public comment period, permittees recognized an error in the data used for the RP analysis for Outfall 03A048. Specifically, the values for selenium were reported in the renewal application using EPA Method 200.8, which method generated false positives for selenium. (A modified analytical method, SW 846 Method 7742, is authorized in the previously issued permit for reporting and compliance purposes.) Thus, EPA’s RP determination for selenium at Outfall 03A048 was based on flawed data. Permittees brought the selenium false positives issue in comments on the draft

permit, and submitted new split sample results indicating that selenium was not present in the samples at levels with a reasonable potential to cause or contribute to an excursion above state water quality standards. Accordingly, permittees requested that the requirements related to selenium at Outfall 03A048 be eliminated. However, when EPA recalculated the RP for selenium, EPA used both true and false data and it resulted in establishment of effluent limitations and elevated monitoring frequency of 3/week.

EPA Response: EPA took a very conservative approach by averaging all SW 846 Method 7742 and EPA Method 200.8 selenium data provided to EPA in calculation of RP during the final permit decision. While EPA cannot definitively determine that all EPA Method 200.8 was in fact false, use of suspect data is not scientific sound, so EPA decides that it should not use the EPA Method 200.8 data in permit development. Method SW 846 7742 was approved for reporting and compliance purposes in both the previous and current permits and the permittees have demonstrated no selenium RP based on data from Method SW 846 7742. Therefore, EPA proposes to remove the monitoring requirements and effluent limitations for selenium at Outfall 03A048.

B. Comment Issue:

Flow Measurements at Outfalls 03A113, 03A027, 03A048, 03A160, 03A199, and 03A181: The permittees requested to change the flow measurement type from “record” to “estimate” for Outfall 03A113, 03A027, 03A048, 03A160 and 03A199, and add the definition of “estimate” flow to all those six outfalls. EPA did not provide explanations to require flow record at those outfalls or provide the definition of “record” for those discharges.

EPA’s Response: EPA proposed to change the flow measurement type from “record” to “estimate” because “estimate” type was used in the previous permit and it was likely that the “record” type was a typographical error when EPA proposed permit renewal in 2013 and EPA did not receive any comment on the issue.

Compliance Schedules for Outfall 03A048, 03A160 and 051: The permittees requested 3-year compliance schedules be established for parameters which have more stringent limitations in the new permit.

EPA’s Response: While the New Mexico Water Quality Standards do allow compliance schedules, 40 CFR 122.47(a)(1) states “schedules of compliance ... shall require compliance as soon as possible” and there is no automatic three year compliance period. EPA denies the request and rationales for denial are described as below.

Outfall 03A048

Total Selenium- Effluent limitations are proposed to be removed as described above.

Total Arsenic- Changes of limitations are within 30% and the permittees should be able to comply with the new limitations with a shorter period of time than the 1/year monitoring frequency.

Outfall 03A160

Total Arsenic- The permittees should be able to comply with the new limitations with a shorter period of time than the 1/year monitoring frequency.

Total Copper- Changes of limitations are within 5% and the permittees should be able to comply with it without a compliance schedule.

Outfall 051- No discharge has occurred since 2010. The permittees can start evaluating the treatment technology and operation practices prior to next discharge.

Effluent Limitations and Monitoring Requirements at Outfall 04A022: The permittees requested clarification on the effluent limits, monitoring and reporting requirements for Outfall 04A022. The permittees commented “It is assumed that the effluent limits are established only for the once through cooling water discharge. If the intent of the Permit Writer is to have monitoring requirements for storm water and roof drain water in this permit at Outfall 04A022, then the Permittees request that only monitoring and reporting requirements (no effluent limits) be established for storm water discharges, or a 3-year compliance schedule for storm water/roof drain water will be needed to meet the permit limits for pH and TSS at Outfall 04A022 (Page 11 of Part I).” The permittees also stated “...the pH of natural rainwater in New Mexico is often < 6.0 s.u., and it is unknown if storm water/roof drain water will meet the TSS limits.”

EPA’s Response: All parameters, except for total residual chlorine (TRC) listed for monitoring requirements and/or effluent limitations apply to storm water and roof drain discharges; and all parameters including TRC apply to once through cooling water discharges. Because both pH and TSS limitations were retained from the previous permit and discharges of storm water/roof drain are infrequent, the permittees should be able to use the existing on-site technologies to control both pH and TSS. No compliance schedule is proposed. Flow measurement type is changed to estimate.

Effluent Limitations and Monitoring Requirements at Outfall 03A027: (1) The Permittees requested that “total PCB (ug/L) *2” be added to the effluent characteristic table for Outfall 03A027 after E. Coli to reflect the discharge limitation monitoring requirement (at Page 17 of Part I). (2) The permittees requested clarification as to whether BOD monitoring and reporting requirements apply at Outfall 03A027. (3) The Permittees also requested the WET monitoring requirement be changed to “Grab” due to the intermittent ‘discharge type’ of the cooling tower blowdown to this outfall and it is consistent with sample type of ‘Grab’ for all other parameters listed for this outfall.

EPA’s Response: (1) EPA proposes to add “total PCB (ug/L) *2” to the effluent characteristic table. (2) EPA does not intend to require limit or monitoring for BOD at Outfall 03A027 in the permit issued August 12, 2014. All effluent limitations established at Outfall 03A027 are water quality-based limitations. (3) EPA proposes to change the sample type from “24-hour composite” to “3-hour composite” because a “3-hour composite” sample type was used in the previous permit. The “24-hour composite” sample type might be a typo when EPA proposed the permit renewal in 2013. The term “3-hour composite sample” means a sample consisting of a minimum of one (1) aliquot of effluent collected at a one-hour interval over a period 3 hours of discharge.

Description of Outfall 03A113: Buildings 294, 1032, and 1038 no longer discharge to the outfall, and will not in the future. The Permittees requested the description located on Page 25 of Part I be changed to (TA-53-293 & 952).

EPA's Response: EPA proposes to change the description of Outfall 03A113 to (TA-53-293 & 952).

Effluent Limitations and Monitoring Requirements at Outfall 03A181: The permittees requested clarification on the effluent limits, monitoring and reporting requirements for Outfall 03A181. The permittees commented "It is assumed that the effluent limits are established only for the once through cooling water discharge. If the intent of the Permit Writer is to have monitoring requirements for storm water in this permit at Outfall 03A181, then the Permittees request that only monitoring and reporting requirements (no effluent limits) be established for storm water discharges, or a 3-year compliance schedule for storm water discharge will be needed to meet the permit limits for pH and TSS...." The permittees also stated "...the pH of natural rainwater in New Mexico is often < 6.0 s.u., and it is unknown if storm water will meet the TSS limits."

EPA's Response: All parameters, except for total residual chlorine (TRC) listed for monitoring requirements and/or effluent limitations apply to storm water discharges; and all parameters including TRC apply to once through cooling water discharges. Because both pH and TSS limitations were retained from the previous permit and discharges of storm water are infrequent, the permittees should be able to use the existing on-site technologies to control both pH and TSS. No changes to the permit or a compliance schedule are proposed.

Outfall 13S: The permittees stated that "Outfall 13S is located at the TA-46 Sanitary Waste Water System (SWWS) Plant and potentially discharges treated sanitary wastewater effluent to the TA-3-336 Reuse Tank for tertiary treatment at the TA-3 Sanitary Effluent Reclamation Facility (SERF) or directly to NPDES Outfall 001; or directly into Canada Del Buey. The SWWS Plant has never discharged to Canada Del Buey since beginning operations in 1992. The permittee will properly operate and maintain these facilities pursuant to Part III. B and will not discharge to Canada del Buey unless under emergency conditions. If a discharge occurs to Canada del Buey, the permittee will notify EPA pursuant to Part III.D. of the Laboratory's NPDES Permit."

EPA's Response: Comment noted. No permit changes proposed.

6T3 Temperature Monitoring at Outfall 001: The permittees in their email dated September 24, 2014, stated "...the monitoring requirement is '1/Hour, Grab (or Continuous Record)'. A compliance schedule is stated for the effluent limitation (6T3 = 20°C), but not for the monitoring requirement of 1/Hour. In the EPA response to comments, NMED stated that they recognize that new or updated temperature monitoring instrumentation and/or procedures and operational changes may be needed to meet the 6T3 temperature limitations...." Then, it continued that "Currently, there is no instrumentation to monitor temperature 1/Hour at Outfall 001. For the previous permit (temperature monitoring requirement 1/Week, Grab), monitoring was by a grab sample and a calibrated temperature probe."

EPA's Response: EPA proposes to include the 1/Hour monitoring frequency in the permit because the compliance schedule was designed to address monitoring instrumentation and operational changes. EPA also proposes to re-establish the 1/Week and grab sample type as the

interim monitoring and reporting requirements for temperature.

Potential Contaminant in Sewer System: The permittees notified EPA R6's Water Enforcement Branch in the letter dated August 27, 2014, that showers and sinks used by personnel to wash off after working in the building or near areas adjacent to the high explosive (HE) facilities have potential to contain HE. Approximately 50 – 100 gallons per day of soap and wash water which may contain de minimis quantities of HE are discharged to the sanitary collection system. The permittees also stated that the basement of Building 86 was flooded and captured storm water were contaminated with oil & grease, uranium, and HE. The captured storm water would be disposed at the Sanitary Wastewater Systems Plant (SWSP) for treatment and discharge.

EPA's Response: The SWSP is not designed to treat HE waste stream and Outfall 13S or Outfall 001 is not authorized to discharge HE waste stream. It is common that workers' personnel clothing and/or body are contaminated with de minimis amount of chemicals, oil and grease, raw materials, products, by-products, and etc., and those contaminants are washed off to the sanitary collection system through washing, shower, or laundry. While LANL shall (and has done so) provide as detailed as practicable a list of potential sources of wastes in the application or addendum to the application, EPA does not believe it is necessary to include de minimis amount of HE in the description of the discharge at Outfall 13S or Outfall 001. EPA is not proposing to make any changes for Outfall 13S.

In terms of flooding water or other unexpected waste streams (e.g., collected accidental spill, firefighting water, etc.) needing to be treated at the SWSP, the permittees shall notify EPA R6's Water Enforcement Branch for monitoring requirements or discharge instructions.

III. PUBLIC COMMENT AND FINAL DETERMINATION

The proposed permit modification is open to the public for review and comment for a period of xx days from xxxx, 2014, or until xxxx, 2014 (to accommodate staggered newspaper notice of the proposed modification). In accordance with 40 CFR 122.62, only the modified parts of the permit as described below are open for comment. Anyone wishing to comment on the draft permit modification should submit their comments in writing by the close of business on June 7, 2010, to the address listed below.) Pursuant to 40 C.F.R. § 122.62, only the proposed changes from the previously issued final permit are open for comment.

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Any person, prior to the close of the comment period, may submit a request in writing to EPA for a public hearing to consider the draft permit modification. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least

thirty (30) days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest.

Following the close of the comment period and any public hearing, if held, the Regional Administrator will issue a final permit modification decision and forward a copy of the final decision to the permittees, and send a notice to anyone who submitted written comments on the modification or requested notice.