STATE OF NEW MEXICO

BEFORE THE SECRETARY OF ENVIRONMENT

IN THE MATTER OF:

**PETITION FOR REVIEW OF
THE STATE CERTIFICATION
OF LOS ALAMOS NATIONAL LABORATORY
INDUSTRIAL WASTEWATER
NPDES PERMIT NO. NM0028355**

No.

**Triad National Security, LLC and
United States Department of Energy,
National Nuclear Security Administration**

Petitioners

TRIAD NATIONAL SECURITY, LLC AND THE UNITED STATES DEPARTMENT OF ENERGY PETITION FOR REVIEW

Petitioners Triad National Security, LLC and the United States Department of Energy, National Nuclear Security Administration (collectively "Triad/DOE"), pursuant to 20.6.2.2001.H NMAC, submit this petition for review of Conditions 1 and 2 of the State Certification of Los Alamos National Laboratory ("LANL") Industrial Wastewater NPDES Permit No. NM0028355 ("401 Certification"), dated November 30, 2020. A copy of the 401 Certification is attached to this Petition as Attachment A. NPDES Permit No. NM0028355 authorizes discharges to various tributaries in segments 20.6.4.126 NMAC (perennial waters within LANL) and 20.6.4.128 NMAC (intermittent and ephemeral waters within LANL). In support of this petition for review, Triad/DOE states.

I. SUMMARY OF CHALLENGED CONDITIONS

Triad/DOE appeals Conditions 1 and 2 of the 401 Certification as follows:

1. Condition 1 requires Triad/DOE to (a) "monitor and report [18] PFAS in effluent once during the first year of coverage, or when the facility next discharges if no discharge occurs

during the first year;" (b) analyze samples "for all 18 PFAS analytes using EPA Method 537.1 (EPA 2018);" and (c) if PFOA or PFOS "are detected above the New Mexico screening level, additional monitoring and reporting shall occur annually." Condition 1 also recommends that Triad/DOE "take corrective action and identify ways to minimize, reduce, and eliminate PFAS from the industrial activity through product substitution and/or additional best management practices and operational control."

As explained below, none of the 18 PFAS analytes are identified as toxic pollutants in the state surface water quality standards and the requirements in Condition 1 are not necessary to ensure compliance with applicable surface water quality standards under the federal Clean Water Act and the New Mexico Water Quality Act, and therefore exceed the limited scope of the New Mexico Environment Department's ("NMED") authority under federal and state law. First, neither the Toxic Release Inventory's ("TRI") list of reportable chemicals or EPA's Toxic Substances and Disease Registry support the imposition of surface water discharge compliance requirements. Second, NMED does not address the applicable technical criteria to support the 401 Certification's requirements for the 18 PFAS analytes to protect surface waters standards. The process in the WQCC regulations requires NMED to undergo a process to determine whether the 18 PFAS analytes meet the criteria for toxicity for surface water protection. See 20.6.4.7 and 20.6.4.13(f) NMAC. Third, even if PFAS could be regulated as proposed, NMED first must determine the amount of PFAS in surface waters that are toxic, given the location of the discharge and other factors, and then determine whether the discharge of PFAS has a "reasonable potential" to cause or contribute to an exceedance of that amount. Finally, the analytical methods that Condition 1 mandates, Methods 537 and 537.1, are not approved by EPA

under 40 CFR Part 136, and therefore, cannot be used for 401 certifications or compliance determination.

2. Condition 2, in part, sets an effluent limit for Polychlorinated Biphenyls ("PCBs") for Outfall 051 and mandates that monitoring and reporting of PCBs from all of the outfalls be performed in accordance with Method 1668C. As explained below, effluent limits for Polychlorinated Biphenyls ("PCBs") for Outfall 051 are not necessary to assure compliance with applicable requirements of federal and state law because (a) EPA did not determine that there is a reasonable potential to exceed applicable water quality standards for PCBs at Outfall 051, and therefore, there is no basis for requiring an effluent limitation for the discharge; and (b) NMED's justification for the condition does not demonstrate that discharges from Outfall 051 have a reasonable potential to cause or contribute to an exceedance of applicable water quality standards. Additionally, the analytical method mandated by Condition 2, Method 1668C, is not approved for PCBs under 40 CFR Part 136, and therefore, cannot be used for 401 certifications or compliance determinations.

II. REASONS FOR THE APPEAL

A. Statutory and Regulatory Background

EPA has not delegated authority to New Mexico to administer the national pollutant discharge elimination system (NPDES) permit program within the state, and therefore has responsibility for issuing permits under Section 402 of the Clean Water Act, 33 USC § 1342, for point source discharges to waters of the United States. Even without delegation, New Mexico is authorized under Section 401 of the Clean Water Act, 33 USC § 1341, to certify that an EPA proposed NPDES permit (as proposed or with conditions) "will comply the applicable provisions of sections 301, 302, 303, 306, and 307 of [the Clean Water Act]" and "with any other

appropriate requirement of State law set forth in such certification." Section 401(a)(1) & (d) of the Clean Water Act, 33 USC § 1341(a)(1) & (d).

1. Federal Clean Water Act and Regulations

Section 401 of the Clean Water Act provides:

> (a)(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, ***that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title***.
>
> (d) Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and ***with any other appropriate requirement of State law set forth in such certification***, and shall become a condition on any Federal license or permit subject to the provisions of this section.

Emphasis added. Section 304(h) of the Clean Water Act, 33 USC § 1314(h), requires the EPA Administrator to "promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to [Section 401 of the Clean Water Act] or permit application pursuant to [Section 402 of the Clean Water Act]."

EPA regulations implementing Sections 304(h) and 401 expressly limit the scope of a Clean Water Act section 401 certification to "assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements" defined by the EPA as "applicable provisions of §§ 301, 302, 303, 306, and 307 of the Clean Water Act, and state or tribal regulatory requirements for point source discharges into waters of the United States." 40

CFR § 121.3, 40 CFR § 121.1(n). New Mexico's section 401 certification authority for NPDES permits is "whether the § 401 certification provides reasonable assurance that state water quality standards will be met." *See In Port of Seattle v. Pollution Control Hearings Board*, 151 Wash. 2d 568, 596, 90 P.3d 659, 673 (WA 2004) (determining, with regard to a challenge to a § 401 certification, that "whether the § 401 certification provides reasonable assurance that state water quality standards will be met" is a "threshold matter" meaning the agency must first conclude that the permit is inadequate to protect water quality in a particular respect before it may impose additional conditions).

EPA regulations further provide that "[a]ny grant of certification with conditions shall be in writing and shall for each condition include, at a minimum, for certification conditions on an individual permit, "[a] statement explaining why the condition is necessary to assure that the discharge from the proposed project will comply with water quality requirements," and "[a] citation to federal, state, or tribal law that authorizes the condition." 40 CFR § 121.7(d). In sum,

> a state receiving a Section 401 application has four options in total: it may grant a certificate without imposing any additional conditions; grant it with additional conditions; deny it; or waive its right to participate in the process. If the state grants the certificate – whether with or without conditions – the certification must contain a *statement that there is* a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.

Sierra Club v. State Water Control Board, 898 F.3d 383, 388 (4th Cir. 2018) (internal citations and quotation marks omitted).

40 CFR § 122.44(d) specifies that when EPA determines that a discharge "causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard," it must "use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or

pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water." 40 CFR § 122.44(d)(1)(ii). When EPA determines "that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant." 40 CFR § 122.44(d)(1)(iii).

40 CFR § 122.44(i)(1) requires that to assure compliance with effluent limitations, the permit include requirements to monitor "[a]ccording to sufficiently sensitive test procedures (i.e., methods) ***approved under 40 CFR part 136*** for the analysis of pollutants or pollutant parameters. A method is "sufficiently sensitive" when "[t]he method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter;" or "[t]he method has the lowest ML of the analytical methods ***approved under 40 CFR part 136*** or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter." Emphasis added.

40 CFR § 136.1(a) requires that Part 136 approved methods, "be used to perform the measurements indicated whenever the waste constituent specified is required to be measured for*:* (1) An application submitted to [EPA] and/or reports required to be submitted under NPDES permits or other requests for quantitative or qualitative effluent data under parts 122 through 125 of this chapter; and (2) Reports required to be submitted by dischargers under the NPDES established by parts 124 and 125 of this chapter; and (3) Certifications issued by States pursuant to section 401 of the Clean Water Act (CWA), as amended."

2. New Mexico Water Quality Act and Regulations

NMED's certification under Section 401 of the Clean Water Act is subject to the New Mexico Water Quality Act, Section 74-6-5 and Water Quality Control Commission ("WQCC") regulations. Section 74-6-5.B requires the WQCC to adopt regulations "establishing procedures for certifying federal water quality permits." Section 74-6-5.D provides that NMED "has the burden of showing that each condition is reasonable and necessary to ensure compliance with the Water Quality Act and applicable regulations, considering site-specific conditions."

Pursuant to the Water Quality Act, the WQCC adopted regulations establishing procedures for certification of federal NPDES permits. Those regulations, 20.6.2.2001.A NMAC, specify that the purpose of certifying federal NPDES permits "is to reasonably ensure that the permitted activities will be conducted in a manner that will comply with applicable water quality standards, including the antidegradation policy, and the statewide water quality management plan." *See also* 401 Certification at 1. The regulation provides that "[a]fter review of a draft permit [issued by EPA], [NMED] will either: (1) certify that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the [federal] Clean Water Act[1] and with appropriate requirements of state law; (2) certify that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the [federal] Clean Water Act and with appropriate requirements of state law upon inclusion of specified conditions in the permit and include the justification for the conditions; or (3) deny certification and include reasons for the denial." 20.6.2.2001.B NMAC.

[1] §208(e) precludes NPDES permits in conflict with area wide waste treatment management plans; §301 provides for the EPA adoption of effluent limitations for point sources; §302 provides for the EPA adoption water quality related effluent limitations; §303 provides for the adoption of water quality standards; §306 provides for the EPA adoption of national standards of performance, including standards of performance for new sources; and §307 provides for the EPA adoption of effluent limitations for toxic pollutants.

Thus, in New Mexico, EPA issues NPDES permits to ensure that point source discharges to waters of the United States will comply with applicable effluent limitations, as well as monitoring and reporting requirements, and NMED, under delegation from the WQCC, authorized to issue the 401 certification, which may include conditions to ensure that the discharge of pollutants will comply with State Water Quality standards, the water quality management plan and will be in compliance with the antidegradation policy. For EPA-issued NPDES permits, EPA regulations require that compliance with applicable effluent limits and conditions of a 401 certification be determined by Part 136 approved methods. 

A. <u>Challenge to Condition 1</u>:

Condition 1 of the 401 Certification states:

> Facilities at outfalls 001, 135, 027, 022, and 051 (which incorporate facilities operating under NAICS codes listed in the *Final Rule [June 22, 2020]* for TRI Reporting [noted above]) shall monitor and report PFAS in effluent once during the first year of coverage, or when the facility next discharges if no discharge occurs during the first year. Samples shall be analyzed by an accredited lab for all 18 PFAS analytes using EPA Method 537.1 (EPA 2018), and the DoD Quality Systems Manual Method 5.3 (2019) as guidance. Method and analysis shall be sufficiently sensitive to evaluate the New Mexico screening level for PFOA and PFOS.
>
> The PFAS screening level in New Mexico is indicated below. The screening level is not a standard of quality and purity for the surface waters of New Mexico but allows detection and further evaluation of the existence of PFAS in discharges to determine if more attention is warranted.

PFAS Screening Level for New Mexico*	
PFOA + PFOS	0.070 ug/L
• Concentration of PFOA and PFOS are summed before being compared to the screening level.	

> If PFOA and/or PFOS are detected above the New Mexico screening level, additional monitoring and reporting shall occur annually and in accordance with the same parameters and methods as required for the first sampling event. In addition, [Triad/DOE] should take corrective action and identify ways to minimize, reduce, and eliminate PFAS from the industrial activity through product substitution and/or additional best management practices and operational

controls. Results of past monitoring and any corrective actions taken should be documented by [Triad/DOE].

The permittee shall submit monitoring results for all 18 PFAS analytes under EPA Method 537.1l as required, to NMED at the following address:

Point Source Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502-5469

NMED justifies the requirement that Triad/DOE sample, monitor take and corrective action for 18 PFAS analytes on the narrative toxic pollutant standard, 20.6.4.13.F NMAC, which provides that "surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitations or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms." 20.6.4.7.T(2) NMAC defines "toxic pollutant" as "those pollutants . . . that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring."

NMED explains that its decision that PFAS are "toxic pollutants" under 20.6.4.7.T(2) NMAC, is based on (1) the WQCC's listing of PHHxS, PFOS and PGOA as toxic pollutants under the ground water regulations, 20.6.2.7(T)(2)(s) NMAC; (2) EPA's listing of "the 172 per-

and polyfluoroalkyl substances (PFAS) added by the National Defense Authorization Act" to the Emergency Planning and Community Right-to-Know Act, Section 313 list of reportable chemicals covered by the Toxic Release Inventory; and (3) information prepared by EPA and the Agency for Toxic Substances and Disease Registry. 401 Certification at 3-4.

The 401 Certification further explains that '[m]onitoring these toxic contaminants helps provide information about whether they are present in discharges to better control and mitigate PFAS in the environment." 401 Certification at 5. NMED explained that it "Advocates taking a proactive approach and establishing PFAS sampling and reporting requirements to assure protection of New Mexico's surface waters, public health and the environment." *Id.*

As explained below, Condition 1 (a) is not necessary to assure compliance with applicable requirements under the federal Clean Water Act, EPA regulations, the New Mexico Water Quality Act and WQCC regulations and therefore, is beyond the NMED's authority under federal and state law; (b) requires the use of EPA Method 537 or EPA Method 537.1, which are not methods approved by EPA under 40 CFR Part 136, and therefore, cannot be used for 401 certifications or compliance determination; and (c) purports to determine acceptable levels of PFAS without first going through the rulemaking procedures specified in the Water Quality Act and the process for establishing toxic pollutant criteria for surface water specified in the WQCC's general surface water standard for toxic pollutants, 20.6.4.13.F NMAC.

1. The 401 Certification requirement to monitor, report, and take corrective action for PFAS are not necessary to ensure that State water quality standards are met.

As explained above, NMED's authority to impose conditions in a 401 certification are limited to those requirements necessary to assure compliance with "the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the [federal] Clean Water Act and with appropriate requirements of state law." There are no provisions of federal law regulating the

discharge of PFAS to waters of the United States, including the requirements of Sections 208, 301, 302, 303, 306 and 307 of the Clean Water Act. Nor are there any applicable requirements of New Mexico law regulating the discharge of PFAS to waters of the state. Thus, the condition is not necessary to assure compliance with applicable requirements, and therefore, beyond NMED's authority under the Water Quality Act and regulations.

NMED asserts the WQCC's narrative toxic pollutant surface water standard, 20.6.4.13.F(1) NMAC ("surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that . . . are toxic to humans . . ."), provides the basis for controlling PFAS discharges. 401 Certification at 3. First, the 401 Certification's regulation of the discharge of 18 PFAS analytes are not supported by the Clean Water Act or the New Mexico Water Quality Act; neither the Toxic Release Inventory's ("TRI") list of reportable chemicals or EPA's Toxic Substances and Disease Registry support the imposition of surface water discharge compliance requirements. The TRI is a reporting – not compliance - requirement based on potential exposure to human health – not the environment – from direct exposure to specific concentrations of PFAS analytes in drinking water. Likewise, EPA's Toxic Substance and Disease Registry is not applicable to NPDES permit compliance or protection of surface waters. Both the methodology and studies upon which these guidance documents are based are simply not applicable to NPDES permit compliance and protection of state surface water quality standards. 

Second, NMED does not even purport to address the applicable technical criteria to support the 401 Certification's requirements for the 18 PFAS analytes to protect surface waters standards. The process in the WQCC regulations requires NMED to undergo a process to determine whether the 18 PFAS analytes meet the criteria for toxicity for surface water

protection. See 20.6.4.7 and 20.6.4.13(f) NMAC. NMED's sweeping reliance on the TRI's reporting requirement and EPA's Toxic Substance and Disease Registry Reliance simply does not comply with the WQCC's defined process for NMED's decisions to protect surface waters for compounds that may present acute or chronic toxicity. NMED explains that "[i]nformation prepared by the EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) demonstrates that PFAS are toxic and can pose hazards to human health and the environment." 401 Certification at 4. However, the cited references address the possible impacts to humans from ingesting PFAS in drinking water.

Third, even if PFAS could be regulated as proposed, under the EPA regulations, NMED must determine the amount of PFAS in surface waters that are toxic and then determine whether the discharge of PFAS has a "reasonable potential" to cause or contribute to an exceedance of New Mexico water quality standards. EPA did not determine that PFAS had a "reasonable potential" and NMED avoids addressing the evaluation in the 401 Certification. Absent such a determination, NMED has no authority to regulate the discharge of PFAS in this certification.

Finally, none of the outfalls regulated by this permit discharge to receiving waters with a drinking water supply designated use. In fact, the two segments affected, 20.6.4.126 and 20.6.4.128 NMAC, only list secondary contact as a designated use. "Secondary contact" is defined as "any recreational or other water use in which human contact with the water may occur and in which the probability of ingesting appreciable quantities of water is minimal." 20.6.4.7.S(1) NMAC. Absent a use of the water for human drinking water, there is no necessity to control the discharge of PFAS from these outfalls, and thus, no basis for NMED's certification condition for PFAS.

2. EPA Method 537 and EPA Method 537.1 are not approved by EPA under 40 CFR Part 136, and cannot be used for 401 certifications or compliance determination.

As discussed above, Sections 304 and 401 of the Clean Water Act and EPA regulations, 40 CFR § 136.1(a)(3), require the use of EPA Part 136 approved methods in 401 certifications and to determine compliance with permit requirements. Even if NMED could impose conditions for the discharge of PFAS, it cannot require the use of Method 537 or 537.1. Neither method is approved by EPA under 40 CFR Part 136. Additionally, these methods were developed for drinking water use, not surface water discharges.

3. **NMED is adopting requirements for PFOA and PFOS without first going through the Water Quality Act's rulemaking procedures and the process for establishing toxic pollutant criteria for surface water specified in the narrative toxic pollutant surface water standard.**

By using the 401 certification process, NMED is attempting to avoid the rulemaking requirements of the Water Quality Act and the procedures in the WQCC's narrative toxic pollutant surface water standard. The Water Quality Act, Section 74-6-4.D, requires the WQCC to "adopt water quality standards for surface and ground waters of the state based on credible scientific data and other evidence appropriate under the Water Quality Act." The Act requires that standards "include narrative standards and, as appropriate, the designated uses of the waters and the water quality criteria necessary to protect such uses. The standards shall at a minimum protect the public health or welfare, enhance the quality of water and serve the purposes of the Water Quality Act." It further provides that the WQCC "shall give weight it deems appropriate to all facts and circumstances, including the use and value of the water for water supplies, propagation of fish and wildlife, recreational purposes and agricultural, industrial and other purposes. The Act specifies the procedures required for the adoption of standards, including public notice and a public hearing where affected parties can present witnesses, submit evidence, and examine witnesses. Section 74-6-6.

Additionally, the Water Quality Act, Section 74-6-4.E, requires the WQCC to "adopt, promulgate, and publish regulations to prevent or abate regulations to prevent or abate water pollution" including requirements for monitoring, sampling, analysis, and reporting. The Act provides that the WQCC, "[i]n making regulations . . . shall give weight it deems appropriate to all relevant facts and circumstances."

By using the 401 certification process to establish requirements for the discharge of PFAS, NMED, not the WQCC, decides the level of PFAS that are necessary to "protect the public health [and] welfare, enhance the quality of water and serve the purposes of the Water Quality Act," and other requirements, including monitoring, sampling, analysis, and reporting requirements. Those decisions are delegated to the WQCC alone. By utilizing the 401 certification process, NMED is bypassing the public process specified in the Water Quality Act and usurping the WQCC's policymaking responsibility. NMED's proposed Condition 1 is contrary to law and should be withdrawn.

Additionally, the WQCC has acknowledged that "[n]arrative criteria [like the narrative toxic pollutant criteria] are required for many constituents because accurate data on background levels are lacking. More intensive water quality monitoring may identify surface waters of the state where existing quality is considerably better than the established criteria." The WQCC noted that "[w]hen justified by sufficient data and information, the water quality criteria will be modified to protect the attainable uses." 20.6.4.10.B NMAC. In adopting the narrative toxic pollutant standard, the WQCC provided procedures to derive numeric criteria for human health-organism only and chronic and acute aquatic life criteria. 20.6.4.14.F.2&3 NMAC. When such numeric criteria are derived, the WQCC provided that "[w]ithin 90 days of the issuance of a final NPDES permit containing a numeric criterion selected or calculated pursuant to [20.6.4.14.F(2),

(3), or (4) NMAC], the department shall petition the commission to adopt such criterion into these standards." NMED's use of the 401 certification process bypasses the WQCC's adoption of water quality criteria and avoids the WQCC's process for reviewing and approving proposed numeric criteria implementing the narrative toxic pollutant standard.

For the reasons stated above, Condition 1 is not necessary to assure compliance with applicable requirements, including surface water quality standards, and is contrary to state law. As a result, the Secretary should withdraw the condition.

B. <u>Challenge to Condition 2</u>:

Condition 2 of the 401 Certification states:

> USEPA must continue the requirement in the draft permit to include a monitoring and compliance maximum discharge limit for Polychlorinated Biphenyls (PCBs) of 0.00064 micorgrams per Liter (µg/L). The State requires that monitoring and reporting of PCBs be performed in accordance with USEPA published Method 1668C or later revisions. Pursuant to 20.6.4.14(A)(3) NMAC, Method 1668C is a State approved method for testing surface wastewater discharges. Additionally, Method 1668C has a Minimum Quantification Level (MMQL) set at or below the applicable and limiting State WQS found in 20.6.4.900(J)(1) NMAC. Further supporting this requirement is that Method 1668 is the only know and least restrictive and readily available laboratory wastewater sampling method that can reasonably assure that the proposed discharges to not exceed the WQS limits of 20.6.4.900(J)(1) NMAC.
>
> For Outfall 03A027 add footnote: EPA published congener Method 1668 Revision and detection limits shall be used for reporting purposes. The permittee is allowed to develop effluent specific MDL in accordance with Appendix B of 40 CFR 136 (Instructions in Part II.A of this permit).
>
> Outfall 051 has recently discharged and according to representative effluent characteristics submitted in the application there may be a reasonable potential for the effluent to exceed state WQS and EPA should add an effluent limitation for PCBs at Outfall 051.[2]

[2] Triad/DOE notes that PCBs were analyzed for two of the three discharges from Outfall 051 using Method 1668, and they came up ND. Thus, there is no reasonable potential to exceed state water quality standards for PCBs at Outfall 051, even using Method 1668.

As discussed above, Sections 304 and 401 of the Clean Water Act and EPA regulations, 40 CFR § 136.1(a)(3), require the use of EPA Part 136 approved methods in 401 certifications and to determine compliance with permit requirements. Method 1668C, which the 401 Certification requires Triad/DOE to use in monitoring and compliance for analyzing for PCBs, is not a Part 136 approved method. In fact, EPA sought approval of Method 1668, but in 2012 deferred action, 77 Fed. Reg. 29,758, 29,763 (May 18, 2012), and again in 2017, 82 Fed. Reg. 40,836, 40,876 (August 28, 2017).

Additionally, in 2006, NMED sought EPA's Tier 1 approval for Method 1668 for use in NPDES Permit No. NM0028355. Letter from Marcy Leavitt, Bureau Chief, NMED Surface Water Quality Bureau, to Richard Greene, Regional Administrator, EPA Region 6, dated May 25, 2006. The letter is attached as Attachment B. EPA did not approve the request.

Since Method 1668C is not an EPA Part 136 approved method, it cannot be required for monitoring or determining compliance with effluent limitations. As such, the Condition 2, which requires its use, is not required for compliance with applicable federal or state requirements and therefore, violates Section 401 of the Clean Water Act, 33 USC § 1341, and regulations, and the Water Quality Act. Section 74-6-5.E, and WQCC regulations. The Secretary should withdraw Condition 2.

RELIEF REQUESTED

Triad/DOE requests that (1) the Secretary review the 401 Certification; (2) in accordance with 20.6.2.2001.H NMAC, hold a public hearing on the petition; and (3) for the reasons stated above, withdraw Conditions 1 and 2. 

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

By: */s/Louis W. Rose*

Louis W. Rose
Kari Olson
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 982-3873
lrose@montand.com
kolson@montand.com

TRIAD NATIONAL SECURITY, LLC

By: */s/Susan McMichael*

Susan McMichael
Office of General Counsel
Los Alamos National Laboratory
P.O. Box 1663, MS A187
Los Alamos, NM 87545
(505) 667-7512
smcmichael@lanl.gov

Attorneys for Triad National Security, LLC

U.S. DEPARTMENT OF ENERGY

By: */s/Silas R. DeRoma*

Silas R. DeRoma
Stephen Jochem
U.S. Department of Energy
National Nuclear Security Administration
Los Alamos Site Office
3747 W. Jemez Rd.
Los Alamos, NM 87544
Telephone: 505-667-4668
Silas.DeRoma@nnsa.doe.gov
stephen.jochem@nnsa.doe.gov

Attorneys for U.S. Department of Energy

CERTIFICATE OF SERVICE

I hereby certify that on December 30, 2020, a true and correct copy of the foregoing ***Petition for Review*** was served via electronic mail to the following:

John Verheul
Assistant General Counsel
Office of General Counsel
New Mexico Environment Department
121 Tijeras, NE, Ste. 1000
Albuquerque, NM 87102
John.verheul@state.nm.us

Pamela Jones, Commission Administrator
Water Quality Control Commission
P.O. Box 5469
Santa Fe, NM 87502
Pamela.Jones@state.nm.us

/s/ Louis W. Rose
Louis W. Rose

NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-2855
www.env.nm.gov

Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

Original via FedEx-Copy via Electronic Mail

November 30, 2020

Mr. Charles Maguire, Director
Water Quality Protection Division (6WD)
U. S. Environmental Protection Agency
1201 Elm Street, Suite 500
Dallas, Texas 75202

Re: State Certification Los Alamos National Laboratory Industrial Wastewater
NPDES Permit No. NM0028355

Dear Director Maguire:

Enclosed, please find the state certification for the following proposed National Pollutant Discharge Elimination System (NPDES) permit NM0028355, Los Alamos National Laboratory Industrial Wastewater Permit. Comments and conditions are enclosed on separate sheets.

The U.S. Environmental Protection Agency (EPA) proposes to regulate discharges under the above referenced NPDES Individual permit. A state Water Quality Certification is required by the federal Clean Water Act (CWA) Section 401 to ensure that the action is consistent with state law (New Mexico Water Quality Act, New Mexico Statutes Annotated [NMSA] 1978, Sections 74-6-1 to -17) and complies with the State of New Mexico Water Quality Standards at 20.6.2 and 20.6.4 New Mexico Administrative Code (NMAC), Water Quality Management Plan and Continuing Planning Process, including Total Maximum Daily Loads (TMDLs), and Antidegradation Policy.

Pursuant to State regulations for permit certification at 20.6.2.2001 NMAC, EPA jointly with the New Mexico Environment Department (NMED) issued a public notice of the draft permit and announced a public comment period posted on the NMED web site at https://www.env.nm.gov/surface-water-quality/public-notices/ on November 27, 2019. The NMED public comment period ended on November 2, 2020. NMED received comments from the Buckman Direct Diversion Board and the Permittees, which were considered in this certification.

Sincerely,

for

ATTACHMENT A

Shelly Lemon, Bureau Chief
Surface Water Quality Bureau

cc: (w/ enclosures)
Ms. Evelyn Rosborough, USEPA (6WDPN) via e-mail
Mr. Brent Larsen, USEPA (6WDPE) via e-mail
Mr. Isaac Chen, USEPA (6WDPE) via e-mail
Mr. Michael Hazen, ESHQSS, Triad National Security, LLC by email
Mr. Enrique Torres, EPC-DO, Triad National Security, LLC by email
Mr. Michael Saladen, EPC-CP, Triad National Security, LLC by email
Ms. Taunia Van Valkenburg, EPC-CP, Triad National Security, LLC by email
Ms. Jennifer Griffin, EPC-CP, Triad National Security, LLC by email
Mr. Michael Weis, USDOE NA-LA by email
Ms. Karen Armijo, USDOE NA-LA by email
Buckman Direct Diversion Board, via luke@egolflaw.com

Mr. Ken McQueen, Regional Administrator
Environmental Protection Agency
1201 Elm Street, Suite 500
Dallas, TX 75202

November 30, 2020

STATE CERTIFICATION

RE: **NM0028355, Los Alamos National Laboratory Industrial Wastewater**

Dear Regional Administrator McQueen:

The Cabinet Secretary of the New Mexico Environment Department (NMED) has delegated signatory authority for state certifications of federal Clean Water Act permits to the Surface Water Quality Bureau Chief. NMED examined the proposed NPDES permit referenced above. The following conditions are necessary to assure compliance with the applicable provisions of the Clean Water Act Sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law. Compliance with the terms and conditions of the permit and this certification will provide reasonable assurance that the permitted activities will be conducted in a manner which will not violate applicable water quality standards or the water quality management plan and will be in compliance with the antidegradation policy.

The State of New Mexico

( ) certifies that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law

(x) certifies that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law upon inclusion of the following conditions in the permit (see attachments)

( ) denies certification for the reasons stated in the attachment

( ) waives its right to certify

In order to meet the requirements of State law, including water quality standards and appropriate basin plan as may be amended by the water quality management plan, each of the conditions cited in the draft permit and the State certification shall not be made less stringent, unless changes are in response to formal comments received by EPA and discussed with NMED prior to the finalization of the draft permit.

NMED reserves the right to amend or revoke this certification if such action is necessary to ensure compliance with the State's water quality standards and water quality management plan.

Please contact Sarah Holcomb at (505) 819-9734 if you have any questions concerning this certification. Comments and conditions pertaining to this draft permit are attached.

Sincerely,

Shelly Lemon, Bureau Chief
Surface Water Quality Bureau

State of New Mexico Comments and Conditions on the Proposed NPDES Permit
Los Alamos National Laboratory Industrial Wastewater
NM0028355
November 30, 2020

The following conditions are necessary to ensure that discharges allowed under the National Pollutant Discharge Elimination System (NPDES) permit protect State of New Mexico surface water quality standards (WQS) adopted in accordance with Section 303 of the Clean Water Act (CWA) and the New Mexico Water Quality Act (NMSA 1978, §§ 74-6-1 to -17). State of New Mexico (State) WQS are codified in Title 20, Chapter 6, Part 4 of the New Mexico Administrative Code (20.6.4 NMAC), *Standards for Interstate and Intrastate Surface Waters*, as amended by the New Mexico Water Quality Control Commission (WQCC) on May 22, 2020 and most recently approved by the U.S. Environmental Protection Agency (EPA or USEPA) as of July 24, 2020. Additional state WQS are published in Title 20, Chapter 6, Part 2 of the New Mexico Administrative Code (20.6.2 NMAC), *Ground and Surface Water Protection*, as amended by the WQCC most recently on December 21, 2018.

NPDES regulations at 40 CFR § 122.44(d)(l)(i) require that permit "…limitations must control all pollutants or pollutant parameters... which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard…"

40 CFR § 124.53(e) states that, "State certification shall be in writing and shall include: (1) Conditions which are necessary to assure compliance with the applicable provisions of CWA Sections 208(e), 301, 302, 303, 306 and 307 and with appropriate requirements of State law…"

Conditions of Certification:

Condition # 1:
Facilities at outfalls 001, 13S, 027, 022, 055, and 051 (which incorporate facilities operating under NAICS codes listed in the *Final Rule [June 22, 2020]* for TRI Reporting [noted above]) shall monitor and report PFAS in effluent once during the first year of coverage, or when the facility next discharges if no discharge occurs during the first year. Samples shall be analyzed by an accredited lab for all 18 PFAS analytes using EPA Method 537.1 (EPA 2018), and the DoD Quality Systems Manual Method 5.3 (2019) as guidance. Method and analysis shall be sufficiently sensitive to evaluate the New Mexico screening level for PFOA and PFOS.

The PFAS screening level in New Mexico is indicated below. The screening level is not a standard of quality and purity for the surface waters of New Mexico but allows detection and further evaluation of the existence of PFAS in discharges to determine if more attention is warranted.

PFAS Screening Level for New Mexico*	
PFOA + PFOS	0.070 ug/L

* Concentrations of PFOA and PFOS are summed before being compared to the screening level.

If PFOA and/or PFOS are detected above the New Mexico screening level, additional monitoring and reporting shall occur annually and in accordance with the same parameters and methods as required for the first sampling event. In addition, the permittee should take corrective action and identify ways to minimize, reduce, and eliminate PFAS from the industrial activity through product substitution and/or

additional best management practices and operational controls. Results of past monitoring and any corrective actions taken should be documented by the permittee.

The permittee shall submit monitoring results for all 18 PFAS analytes under EPA Method 537.1, as required, to NMED at the following address:

Point Source Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502-5469

Background for Condition #1

New Mexico regulations (Standards for Interstate and Intrastate Surface Waters) under 20.6.4.13(F) NMAC state: Except as provided in 20.6.4.16 NMAC, surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitations or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.

New Mexico regulations (Ground and Surface Water Protection) under 20.6.2.7(T)(2)(s) NMAC lists the following perfluorinated chemicals (PFCs) as toxic pollutants: perfluorohexane sulfonic acid (PHHxS), perfluorooctane sulfonate (PFOS), and perfluorooctanoic acid (PFOA).

The EPA revised the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 list of reportable chemicals covered by the Toxics Release Inventory (TRI) to include the 172 per- and polyfluoroalkyl substances (PFAS) added by the National Defense Authorization Act.[1]

The following is a list of North American Industrial Classification System (NAICS) codes from EPA's Final Rule (June 22, 2020) that may be potentially affected by TRI reporting requirements:[2]

- *Facilities included in the following NAICS manufacturing codes (corresponding to Standard Industrial Classification (SIC) codes 20 through 39): 311*, 312*, 313*, 314*, 315*, 316, 321, 322, 323*, 324, 325*, 326*, 327, 331, 332, 333, 334*, 335*, 336, 337*, 339*, 111998*, 211130*, 212324*, 212325*, 212393*, 212399*, 488390*, 511110, 511120, 511130, 511140*, 511191, 511199, 512230*, 512250*, 519130*, 541713*, 541715* or 811490*. *Exceptions and/or limitations exist for these NAICS codes.*
- *Facilities included in the following NAICS codes (corresponding to SIC codes other than SIC codes 20 through 39): 212111, 212112, 212113 (corresponds to SIC code 12, Coal Mining (except 1241)); or 212221, 212222, 212230, 212299 (corresponds to SIC code 10, Metal Mining (except 1011, 1081, and 1094)); or 221111, 221112, 221113, 221118, 221121, 221122, 221330 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce) (corresponds to SIC codes 4911, 4931, and 4939, Electric Utilities); or 424690, 425110, 425120 (limited to facilities previously classified in SIC code 5169, Chemicals and Allied Products, Not Elsewhere Classified); or 424710 (corresponds to SIC code 5171, Petroleum Bulk Terminals and Plants); or 562112 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis (previously classified under SIC code 7389, Business Services, NEC)); or 562211, 562212, 562213, 562219, 562920 (limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 et seq.) (corresponds to SIC code 4953, Refuse Systems).*

- *Federal facilities.*

Information prepared by the EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) demonstrates that PFAS are toxic and can pose hazards to human health and the environment.[3,4] In EPA's PFAS Action Plan[5] program update, dated February 2020, the Agency recommends using a screening level of 40 parts per trillion (0.040 ug/L) to determine if PFOA and/or PFOS is present at a site and may warrant further attention.

PFAS has been detected in nearly all environmental media. However, there is very limited data on industrial wastewater discharges of PFAS into the environment, in part due to the fact that relatively few facilities have NPDES permit limits or monitoring requirements for PFAS. The EPA identified only 13 industrial facilities that reported PFAS discharges on discharge monitoring reports (DMRs) in 2016 even though the EPA has identified several categories of industry that are likely to discharge PFAS, such as airports, military bases, fire-fighting equipment manufacturers, organic chemical manufacturers, paper and paperboard manufacturers, tanneries and leather treaters, textiles and carpet manufacturers, semiconductor manufacturers, household cleaning product manufacturers, petroleum refining, and landfills.[6]

Other states' PFAS guidance for various surface and groundwater screening levels are indicated in the tables below.[7,8]

Surface Water PFAS Guidelines in Other States				
	Oregon (ug/L)*	Michigan (ug/L)** DWS/not DWS	Minnesota (ug/L) Rivers	Alaska, Montana (ug/L)***
PFHpA	300	-	-	-
PFOA	24	0.420/12	2.7	0.070
PFOS	300	0.011/0.012	0.007	0.070
PFOSA	0.2	-	-	-
PFNA	1	-	-	-

* The Oregon DEQ wastewater initiation levels were adopted into rule (OAR 340-045-0100, Table A) in 2011. The PFAS are 5 chemicals on a list of 118 persistent priority pollutants for water that Oregon DEQ developed in response to state legislation. *Municipal wastewater treatment plants with effluent exceeding initiation levels are required to develop a pollution prevention plan that becomes a part of their NPDES permit*.
** Michigan's advisory levels are designed to protect human health (non-cancer values) and are based on whether the surface water is a drinking water source (DWS) or not.
*** For these states, concentrations of PFOA and PFOS are summed before being compared to the screening level.

Groundwater PFAS Guidelines in Other States						
	Maine (ug/L)*	New Jersey (ug/L)	New Hampshire (ug/L)**	Colorado, Rhode Island, Delaware (ug/L)*	Illinois (ug/L) ***	Minnesota (ug/L) ****
PFHpA	-	-	-	-	-	-
PFOA	0.400	0.010	0.012	0.070	0.021	0.035
PFOS	0.400	0.010	0.015	0.070	0.014	0.027
PFOSA	-	-	-	-	-	-
PFNA	-	-	0.011	-	0.021	-

* For these states, concentrations of PFOA and PFOS are summed before being compared to the screening level.
** Proposed rulemaking in New Hampshire covers 4 PFAS, and includes PFHxS = 0.018 ug/L.
*** Proposed rulemaking in Illinois covers 5 PFAS, and includes PFHxS = 0.140 ug/L and PFBS = 140 ug/L.
**** Health-based values (not maximum contaminant levels, or MCLs).

States use a variety of methods to test PFAS analytes in different media. The most widely used are EPA Method 537 (2008, applies to 14 PFAS) and EPA Method 537.1 (2018, applies to 18 PFAS). Some labs perform modifications, like using isotope dilution, to these methods for use in other matrices besides drinking water to account for lower reporting limits or greater accuracy. For example, modifications to Method 537.1 can be applied for non-drinking water media.[7]

Monitoring these toxic contaminants helps provide information about whether they are present in discharges to better control and mitigate PFAS in the environment. As stated on EPA's PFAS website,[9] *"PFAS can be found in living organisms, including fish, animals, and humans, where PFAS have the ability to build up and persist over time." Due to the characteristics of these contaminants (i.e., persistence in the environment and the human body, and evidence that exposure to PFAS can lead to adverse human health effects), NMED advocates taking a proactive approach and establishing PFAS sampling and reporting requirements to assure protection of New Mexico's surface waters, public health and the environment.*

1 *https://www.epa.gov/toxics-release-inventory-tri-program/list-pfas-added-tri-ndaa*
2 *https://www.federalregister.gov/documents/2019/12/04/2019-26034/addition-of-certain-per--and-polyfluoroalkyl-substances-community-right-to-know-toxic-chemical*
3 *https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos*
4 *https://www.atsdr.cdc.gov/pfas/pfas_fact_sheet.html*
5 *https://www.epa.gov/sites/production/files/2020-01/documents/pfas_action_plan_feb2020.pdf*
6 *EPA Office of Water, Preliminary Effluent Guidelines Program Plan 14, October 2019, EPA-821-R-19-005*
7 *https://www.ecos.org/documents/ecos-white-paper-processes-and-considerations-for-setting-state-pfas-standards/*
8 *http://pfas-1.itrcweb.org*
9 *https://www.epa.gov/pfas/basic-information-pfas#health*

Condition # 2:
USEPA must continue the requirement in the draft permit to include a monitoring and compliance maximum discharge limit for Polychlorinated Biphenyls (PCBs) of 0.00064 micrograms per Liter (µg/L). The State requires that monitoring and reporting of PCBs be performed in accordance with USEPA published Method 1668C or later revisions. Pursuant to 20.6.4.14(A)(3) NMAC, Method 1668C is a State approved method for testing surface wastewater discharges. Additionally, Method 1668C has a Minimum Quantification Level (MQL) set at or below the applicable and limiting State WQS found in 20.6.4.900(J)(1) NMAC. Further supporting this requirement is that Method 1668C is the only known and least restrictive and readily available laboratory wastewater sampling method that can reasonably assure that the proposed discharges do not exceed the WQS limits of 20.6.4.900(J)(1) NMAC.

For Outfall 03A027 add footnote: EPA published congener Method 1668 Revision and detection limits shall be used for reporting purposes. The permittee is allowed to develop an effluent specific MDL in accordance with Appendix B of 40 CFR Part 136 (instructions in Part II.A of this permit).

Outfall 051 has recently discharged and according to representative effluent characteristics submitted in the application there may be a reasonable potential for the effluent to exceed state WQS and EPA should add an effluent limitation for PCBs at Outfall 051.

Background for Condition #2
Below, NMED provides an explanation for why specific PCB monitoring conditions are necessary for State certification. The following table summarizes the applicable PCB numeric criteria from 20.6.4.900(J)(1) NMAC for the receiving waters of this permit action:

		Aquatic Life			
Pollutant	Wildlife Habitat	Acute	Chronic*	Human Health-Organism Only	Type of Pollutant

PCBs	0.014 µg/L	2 µg/L	0.014 µg/L	0.00064 µg/L	Chronic, Persistent

*Note: * Chronic Aquatic Life Criterion does not apply to Segment 20.6.4.128 with a designated use of Limited Aquatic Life*

As PCBs are identified as a persistent pollutant the HH-OO criteria applies to both the coldwater aquatic life use in Segment 20.6.4.126 and the limited aquatic life use in Segment 20.6.4.128, consistent with 20.6.4.11(G) NMAC. USEPA reasonable potential analysis in the Fact Sheet determined that the PCB effluent characteristics at Outfalls 001, 13S and 027 have a reasonable potential to exceed State WQS. The point source discharge permit condition is calculated to meet numeric criteria based on a modified harmonic low flow per State WQS 20.6.4.11 NMAC and as consistent with the New Mexico Implementation Plan (2012).

The following is a summary of a portion of the monitoring and effluent limitation conditions for PCBs in Part I.A of the Draft Permit for Outfalls 001, 13S and 051:

		Concentration		Loading		
		Monthly Average	Daily Maximum	Monthly Average and Daily Maximum	Frequency	Sample Type
				lbs/day		
001	Total PCB (µg/l)	0.00064	0.00064	Report	1/Year	24-hr Composite
13S	Total PCB (µg/l)	0.00064	0.00064	Report	1/Year	24-hr Composite
027	Total PCB (µg/l)	0.00064	0.00064	Report	1/Quarter	Grab

As noted above and below, the Aroclor method is not sufficiently sensitive to assure that the Permittees will comply with the applicable effluent limit for PCBs contained within the permit and thus cannot be used for monitoring or compliance purposes under state law. The following demonstrates the MDL and MQL limits of several PCB testing methods:

Method	MDL	MQL
EPA Method 608 (Aroclor)	0.065 µg/L	0.02145 µg/L
EPA Method 625	30 µg/L	99 µg/L
SM 6410 B	30 µg/L	99 µg/L
EPA Method 1668C	7-30 pg/L	23-99 pg/L (0.000023-0.000099 µg/L)

Notes: EPA Method 1668 Revision A became Revision C in the May 18, 2012 Federal Register notice of 40 CFR Part 136.

The Aroclor method's MQL is two orders of magnitude above the effluent limitation provided in this draft permit as necessary to comply the State WQS. As documented above, the congener method, EPA Method 1668C, is the only method with a sufficiently sensitive detection limit below State WQS for Total PCBs and therefore must be used when it has been determined that PCBs *"are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above"* State WQS. Again, this condition constitutes *"monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations"* consistent with the provisions of the CWA Section 401(d). 33 U.S.C. §1341 (d).

The State received comments from the Permittees. By their letter dated October 28, 2020, Los Alamos National Laboratory (LANL) provided arguments to support the use of the PCB congener method (EPA

Method 1668C) for reporting purposes but not for enforcement or compliance purposes. As detailed below, the State considered these arguments but found them insufficient to support LANL's proposition:

1. *"NMED may only include reference methods that are approved by EPA under 40 CFR Part 136 for determining compliance with effluent limitations. 40 CFR § 136.1 requires the use of EPA Methods 608 or 625 or Standard Methods 6410.B for determining compliance with effluent limits in NPDES permits."* LANL further cites the May 18, 2012 Federal Register publication of the USEPA decision to defer consideration of inclusion of EPA Method 1668C as a 40 CFR Part 136 method in support of this comment.

The State respectfully disagrees. As noted above, the State is requiring this condition in order to assure compliance with the applicable effluent and state water quality limitation which can only be achieved by use of EPA Method 1668C. This conditional action, as previously stated, is consistent with the provisions of the CWA for State Certification at 401(d) and in accordance with 20.6.2.2001 NMAC and 20.6.4.14(A)(3) NMAC.

Furthermore in reviewing USEPA's action in May 2012, to defer adoption of EPA Method 1668C, they included as part of their discussion that "EPA is still evaluating the large number of public comments and intends to make a determination on the approval of this method [1668C] at a later date…[and t]his decision does not negate the merits of this method for the determination of PCB congeners in regulatory programs or for other purposes when analyses are performed by an experienced laboratory." (FR, Vol. 77, No.97, page 29763)

2. *"LANL is the only known facility in New Mexico where use of the Congener Method 1668 is required to determine compliance with an NPDES permit limit."*

LANL is correct that it is the only facility where the use of USEPA Method 1668C is required for compliance purposes, however there is a very specific reason for this. LANL is the only facility whose discharge has been shown to have a reasonable potential to exceed State WQS for PCBs. The State also notes that LANL is not the only NPDES permittee in New Mexico subject to the specific use of USEPA Method 1668C. For example, six other NPDES permits are required to use this method for monitoring and reporting only. These discharge to waters where PCBs have been identified as a probable cause of a water quality impairment, but there was insufficient data to determine if the discharge had a reasonable potential to exceed State WQS or may contribute to a listed impairment. Therefore, based on these facts, use of Method 1668C is the least restrictive means known by the State to assure that the proposed activity will not exceed or contribute to the degradation of state water quality.

Condition #3:

EPA must revise the publicly noticed Reasonable Potential analysis to include all relevant monitoring data submitted as part of the reapplication package and supplemental information updates and comments from the Permittees per the process in the *New Mexico Implementation Guidance (2012)*. As it stands, the public noticed versions of Reasonable Potential analysis for each outfall covered under this permit are not correctly reflected in the draft permit, and according to the Permittees' comments, also are not reflective of monitoring data they submitted or contain other inaccuracies. NMED requires that once revised, EPA discuss the results of the revisions with the Department prior to finalizing the draft permit to ensure that the permit is technically sound and meets the requirements of State law, including the *Standards for Interstate and Intrastate Waters* at 20.6.4 NMAC. NMED reserves the right to revoke and reissue certification if necessary, to ensure compliance with water quality standards.

Based on NMED's review of the Reasonable Potential (RP) spreadsheets public noticed with the draft permit and data submitted to EPA by the Permittees, it appears that limitations for Thallium and PCBs are

necessary at several outfalls. Monitoring requirements shall exist in the final permit at outfalls where there is an impairment in the receiving waterbody, regardless of whether RP exists.

Outfall	Added Limits/Monitoring	Monitoring Frequency
001	Limit for thallium; monitoring for temperature – compliance schedule ok.	1/year
13S	Limit for thallium; monitoring for gross alpha	1/year
03A027	No additional limits or monitoring.	N/A
03A048	No RP for limits but monitoring for all impairments: gross alpha; cyanide; total mercury; PCBs; total selenium	1/year
03A113	EPA did not evaluate RP for PCBs at this outfall. A limit appears necessary.	1/year
03A160	EPA did not evaluate RP for PCBs at this outfall. A limit appears necessary.	1/year
03A181	It appears no RP spreadsheet was drafted for this outfall. Based on data, RP must be determined for copper and PCBs.	1/year
03A199	RP for thallium exists. EPA did not evaluate RP for PCBs.	1/year
03A022	EPA did not evaluate RP for PCBs. Monitoring requirements must stay in the permit for copper.	1/year
05A055	No additional limits or monitoring.	N/A
051	RP exists for Thallium. EPA did not evaluate RP for PCBs.	1/year

Background for Condition #3:

Below is a comparison of the effluent limitations in the administratively continued permit, water quality impairments as noted in the State of New Mexico CWA §303(d) Integrated List, notes on changes at the facility, pollutants detected in the effluent, and exceedances noted in 2015-2020 monitoring as compared to limits in the proposed permit. From this review, it appears that the following limits should either be added or modified in the final permit. Although RP exists for thallium at multiple outfalls EPA did not place limits into the draft permit.

Outfall Number	Description	Receiving Stream - WQ Segment	Impairments	Changes to Facility	Impaired pollutants detected (2C) (ug/L)	RP	2015-2020 monitoring	Metals Monitoring/Limit in 2020 Permit	Needed Limitations or Monitoring in Final Permit based on RP
001	Power Plant, SWWS, SERF, SCC, NMHFL	Sandia Canyon - 126	Aluminum, Total; Copper, Dissolved; Polychlorinated Biphenyls (PCBs); Temperature	added SCC, future add TA55	Cu 5.45, Al <19.3, PCB <0.0422, Temp, Thallium =0.442	Cu, Zn, PCB, Tl	Exceed PCB	Total Aluminum-report, Total Copper, Zinc, PCB	Thallium; monitoring for temp – compliance schedule ok.
13S	SWWS	Canada del Buey - 128	Alpha Particles; Polychlorinated Biphenyls (PCBs)		α <1.16 PCB<0.0333, Tl =0.6	PCB	No discharge	PCB	Thallium; monitoring for gross alpha (1/year)
03A027	SERF	Sandia Canyon - 126	Aluminum, Total; Copper, Dissolved; Polychlorinated Biphenyls (PCBs); Temperature		Cu 3.15, Al <19.3, PCB <0.0354, Temp	Cu, Zn	Exceed PCB and Cu limit	Total Aluminum, T Copper, PCB, Temperature, Zinc, Phosphorus	No additional limits or monitoring.
03A048	LANSCE	Los Alamos Canyon - 128	Alpha Particles; Cyanide; Mercury, Total; Polychlorinated Biphenyls (PCBs); Selenium, Total		α <1.85, CN<1.67, Hg <0.067, Se <2, PCB <0.0354		No exceed	Phosphorus	No RP for limits but monitoring for all impairments (1/year).
03A113	LEDA	Sandia Canyon - 128	Alpha Particles; Aluminum, Total; Mercury, Total; Polychlorinated Biphenyls (PCBs)		α=2.95, Al<19.3, Hg=0.011, PCB <0.354		Exceed WQS Cu 1x	Total Mercury, Alpha, Total Aluminum, Phosphorus	EPA did not evaluate RP for PCBs at this outfall. A limit appears necessary.
03A160	NMHFL	Ten Site Canyon - 128	Alpha Particles; Polychlorinated Biphenyls (PCBs)		α<0.96, PCB<0.0343	Cr6, Hg, Se, Cy	exceed Cy WQS, 2 exceed Cu WQS	Phosphorus, Mercury, Selenium, Cyanide, Chromium 6	EPA did not evaluate RP for PCBs at this outfall. A limit appears necessary.
03A181	TA-55	Mortandad Canyon - 128	Alpha Particles; Copper, Dissolved; Mercury, Total; Polychlorinated Biphenyls (PCBs)	future to SWWS?	α <0.772, Cu=3.24, Hg<0.067, PCB<0.0378		Cu 0.002	Phosphorus	It appears no RP spreadsheet was drafted for this outfall. Based on data, RP must be determined for copper and PCBs.
03A199	LDCC	Tributary to Sandia Canyon - 126	Aluminum, Total; Copper, Dissolved; Polychlorinated Biphenyls (PCBs); Temperature		Temp, Tl 0.282, Al=<19.3, Cu=3.15, PCB<0.0354		ok	Total Aluminum, T Copper, Temperature, Zn, P	RP for Thallium exists. EPA did not evaluate RP for PCBs.

Outfall Number	Description	Receiving Stream - WQ Segment	Impairments	Changes to Facility	Impaired pollutants detected (2C) (ug/L)	RP	2015-2020 monitoring	Metals Monitoring/Limit in 2020 Permit	Needed Limitations or Monitoring in Final Permit based on RP
03A022	Sigma	Mortandad Canyon - 128	Alpha Particles; Copper, Dissolved; Mercury, Total; Polychlorinated Biphenyls (PCBs)	new heat exchanger	α <1.14, Cu=5.46, Hg<0.067, PCB<0.0351		above WQS for copper	Dissolved Copper-report	EPA did not evaluate RP for PCBs. Monitoring requirements must stay in the permit for copper (1/year).
05A055	HEWTF	Canon de Valle - 128	Alpha Particles		not present	Al, Cu, Pb, Se, Zn	No discharge	TNT, RDX, perchlorate, Aluminum, Copper, Lead, Selenium, Zinc	No additional limits or monitoring.
051	RLWTF	Mortandad Canyon - 128	Alpha Particles; Copper, Dissolved; Mercury, Total; Polychlorinated Biphenyls (PCBs)		α=2.22, Cu=11, PCB<0.0378, Hg <0.067	Cu		Dissolved Copper	RP exists for Thallium. EPA did not evaluate RP for PCBs.

Comments that are not Conditions of Certification:

Comment 1: There appears to be a typo in Footnote 5 for Outfall 001. NMED proposes revision to delete last sentence "6T3 Temperature of 20°C (68°F) shall not be exceeded for six or more consecutive hours in a 24-hour period on more than three consecutive days. ~~Daily maximum temperature shall be determined by 6T3 temperature record when 6T3 temperature~~ ."

Comment 2:
Please ensure that all of the notices of change submitted by LANL since the 2019 NPDES Permit Re-Application was submitted on March 26, 2019 are incorporated.

- Revision 3 to Outfall 03A048 fact sheet to add a Chlorine monitoring system, submitted July 14, 2020 (EPC-DO: 20-222)
- Revision 3 to the Outfall 001 Flow Diagram which addresses improvements made to reduce the temperature of effluent discharged to the outfall as follows:
    - Piping modification to allow for effluent stored in the Reuse Tank to be routed (as needed) to the power plant cooling tower prior to discharge.
    - Piping modification to allow for blowdown associated with the Strategic Computing Complex (SCC) Cooling Towers to be routed to the Reuse Tank where (as needed) it can either be recycled to SERF or routed to the power plant cooling tower prior to discharge.

  This change will not increase the volume or impact the effluent quality (i.e., no new chemicals) other than to reduce the temperature. This change was submitted as a notice of change on July 16, 2020 (EPC-DO: 20-221).
- Renovation of the power plant. This change was submitted as a notice of change on November 26, 2019 (EPC-DO: 19-430). This will increase the volumes at Outfall 001 as indicated below, and were incorporated into the antidegradation calculations.

Table 5
Potential New Future Flow Rates and Frequencies for Discharges to Outfall 001

Potential Future Source	Frequency		Flow Rates and Volumes				
	Days/Week	Months	Average (MGD)	Maximum (MGD)	Average Volume (GPD)	Maximum Volume (GPD)	Duration (days)
SCC Cooling Towers [a, b]	7.0	12	0.074	0.201	74,436	201,056	365
Power Plant Co-Generation Renovation	7.0	12	0.170	0.220	169,920	220,320	365
~~TA-55-006 Cooling Towers [c]~~	~~7.0~~	~~12~~	~~0.009~~	~~0.032~~	~~9,365~~	~~31,986~~	~~365~~
Future Outfall 001 Total [c]	7.0	12	~~0.199~~ 0.311	~~0.439~~ 0.751	~~199,320~~ 310,595	~~438,586~~ 752,463	365

a. See the permit section provided for Outfall 03A027 for a schematic showing this change.
b. Cooling tower blowdown calculated for the operation of 15 towers.
~~b.~~c. Total volume estimate for four source facilities: SWWS Effluent; SERF Effluent; SCC Cooling Towers; and Power Plant Co-Generation Renovation. All four facilities are hydraulically connected and eventually discharge water to Outfall 001 regardless of flow path.

- Startup of 5 additional Cooling Towers at the SCC. This modification was included as a future change in the 2019 NPDES Permit Application submitted March 26, 2019 (see EPC-DO: 19-106).

State of New Mexico
ENVIRONMENT DEPARTMENT
Surface Water Quality Bureau
Harold Runnels Building Room N2050
1190 St. Francis Drive - Zip 87505
P.O. Box 26110 - Zip 87502-6110
Santa Fe, New Mexico
Telephone (505) 827-0187
Fax (505) 827-0160
www.nmenv.state.nm.us

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

CINDY PADILLA
ACTING DEPUTY SECRETARY

May 25, 2006

VIA FIRST CLASS MAIL:

Richard Greene, Regional Administrator
U.S. Environmental Protection Agency
1445 Ross Ave., Suite 1200
Dallas, Texas 75202-2733

Re: Alternate Test Procedure for Polychlorinated Biphenyls
Tier 1 Approval Request - NPDES Permit NM0028355

Dear Mayor Greene:

Pursuant to 40 C.F.R § 136.4 (2005), the New Mexico Environment Department ("NMED") hereby requests Tier 1 approval[1] by the Regional Administrator for Region VI of the United States Environmental Protection Agency ("EPA") of an alternate test procedure for use in conjunction with the discharges made by the Board of Regents of the University of California, operator of the Los Alamos National Laboratory ("Laboratory"), and the U.S. Department of Energy, owner of the Laboratory, under the proposed National Pollutant Discharge Elimination System ("NPDES") permit (Permit NM0028355). This request supplements NMED's original certification of the Laboratory's proposed NPDES permit on March 30, 2006.

Under 40 C.F.R. Part 136, *any person* may apply to the Regional Administrator in the Region where the discharge occurs for approval of an alternative test procedure. 40 C.F.R. § 136.4(a) (2005) (emphasis added). As such, NMED requests that EPA approve of the use of the *EPA Method 1668 Revisions A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS* [EPA-821-R-00-002] for use as the analytical test protocol for all PCB analysis for the purposes of NPDES Permit NM0028355. While NMED believes that its certification of that permit, dated March 30, 2006, contained all the necessary elements for a request under 40 C.F.R. § 136.4, NMED is now submitting this supplemental request to remove any question regarding compliance with the procedures in 40 C.F.R. Part 136 for approval of the alternate test procedures.

[1] Tier 1 as defined in Table 1 of EPA's *Protocol for EPA Approval of Alternate Test Procedures for Organic and Inorganic Analytes I Wastewater and Drinking Water, March 1999*. [EPA 821-B-98-002].

ATTACHMENT B

Pursuant to 40 C.F.R. § 136.4(c), any application for an alternate test procedure shall: (1) provide the name and address of the responsible person or firm making the discharge (if not the applicant) and the applicable ID number of the existing or pending permit, issuing agency, and type of permit for which the alternate test procedure is requested, and the discharge serial number; (2) identify the pollutant or parameter for which approval of an alternate testing procedure is being requested; (3) provide justification for using testing procedures other than those specified in Table I; (4) provide a detailed description of the proposed alternate test procedure, together with references to published studies of the applicability of the alternate test procedure to the effluents in question.

In its certification of the Laboratory's proposed NPDES permit, NMED provided the name (Board of Regents of the University of California, operator of the Laboratory, and the U.S. Department of Energy, owner of the Laboratory), the address of the responsible person making the discharge (Addresses provided for Board of Regents of the University of California and the U.S. Department of Energy), the applicable ID number of the existing or pending permit (NPDES Permit NM0028355), the issuing agency (EPA), the type of permit for which the alternate test procedure is requested (NPDES), and the discharge serial number (001, 13S, 051). NMED identified the pollutant for which approval of an alternate testing procedure is being requested (PCBs). NMED provided justification for using testing procedures other than those specified in Table I (Current methods of analysis in 40 C.F.R. Part 136 for PCBs analysis are not protective of the New Mexico Water Quality Standards). NMED provided a detailed description of the proposed alternate test procedure (*EPA Method 1668 Revisions A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS* [EPA-821-R-00-002]), together with references to published studies of the applicability of the alternate test procedure to the effluents in question (Studies referenced in *EPA Method 1668 Revisions A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS* [EPA-821-R-00-002]).

For the purposes of this supplemental request, NMED has attached three copies of the *ATP Application Form* contained in EPA's *Protocol for EPA Approval of Alternate Test Procedures for Organic and Inorganic Analytes in Wastewater and Drinking Water – March 1999* [EPA 821-B-98-002]. NMED has not provided any of the underlying data and references which support Method 1668A, however, because EPA developed Method 1668A and already possesses this information.

Thank for your timely consideration of this supplemental request.

Marcy Leavitt, Bureau Chief
Surface water Quality Bureau
New Mexico Environment Department

CC VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED:

Mr. Edwin L. Wilmot, Manager
U.S. Department of Energy
Los Alamos Site Office, MS A316
528 35th Street
Los Alamos, NM 87544

Mr. Kenneth M. Hargis, Acting Director
University of California
Environmental Stewardship Division, MS A104
P.O. Box 1663
Los Alamos, NM 87545

CC VIA FIRST CLASS MAIL:

David Stockton, USEPA Region 6
Alternative Test Procedure Contact
U.S. Environmental Protection Agency
Region 6 Laboratory
Houston Branch (6MD-HI)
10625 Fallstone Road
Houston, Texas 77099

Willie Lane, Section Chief
U.S. Environmental Protection Agency
Region 6, NPDES Permits (6WQ-PP),
1445 Ross Ave., Suite 1200
Dallas, Texas 75202-2733

Director, Analytical Methods Staff
Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW.
Washington, DC 20460