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Sent via email: joceline.nahigian@hq.doe.gov

From: Jon S. Lipsky, FBI Retired and Master in Advanced Studies - CLS
University of California, Irvine //s//
Michael Ketterer, Ph.D., Professor Emeritus, Chemistry and
Biochemistry, Northern Arizona University (NAU) //s//

Date: August 31, 2022

RE: Rocky Flats Site, Golden Colorado;
2022 Deferred CERCLA Protectiveness of Remedy - PFAS

Reference USEPA letter to USDOE at Rocky Flats Site dated July 21, 2022;
"PFAS Strategic Roadmap: DOE Commitments to Action 2022-2025" August
2022; and, USEPA "Proposed Designation of Perfluorooctanoic Acid (PFOA) and
Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances" dated
August 26, 2022.

CC List: Jennifer Granholm, Energy Secretary
DOE Inspector General Teri L. Donaldson
Deb Haaland, Interior Secretary
Michael S Regan, USEPA Administrator
William "Ike" White, USDOE
Carmelo Melendez, USDOE/LM
Geraldine Richmond, USDOE
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Andrew Keim, USDOE/LM/RFS
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Director Jill Hunsaker Ryan, CDPHE
Lindsay Masters Murl, CDPHE
Jefferson Parkway Public Highway Authority
Jefferson County Commissioners
RFSC Board of Directors via David Abelson
Mayor Castriotta, Broomfield
Mayor of Northglenn
Arvada City Council
Colorado Congressional Delegation - Media Contacts

The purpose of this communication is to provide unfettered public participation and dialogue with US Department of Energy (USDOE) regarding undefined protectiveness of the remedy at the Rocky Flats Site (RFS), deferred until 2026 regarding the presence of Colorado regulated per- and polyfluoroalkyl substances (PFAS); insufficient RFS records search by USDOE/ Legacy Management (LM); incomplete characterization of PFAS by USDOE/LM at RFS; handling of PFAS compounds, PFOA and PFOS, at RFS; disposal of PFOA and PFOS at RFS, Idaho National Environmental and Engineering Laboratory (INEEL), Waste Isolation Pilot Plant (WIPP), New Mexico, and unknown other disposal locations; and, unaddressed corrective measures (PFAS and May 24, 2022 Statement of Dispute under Rocky Flats Legacy Management Agreement (RFLMA) re pending Contact Record 2021-03) at RFS by USDOE/LM.

We, the authors and engaged stakeholders, of this communication assert and expect priority public participation defined in the Rocky Flats Legacy Management Agreement (RFLMA), a Federal Facility Compliance Agreement between the Colorado Department of Public Health and Environment (CDPHE), US Department of Energy (USDOE) and US Environmental Protection Agency (USEPA) as amended, that USDOE contractually agreed to in 2007. The RFLMA, Section 7, Public Participation states in part: **"Public participation activities are conducted to actively inform the public about Rocky Flats activities and the preparation of documents to provide opportunities for open, ongoing, two-way communication. LM will actively seek, consider, and in a timely manner respond to the views of its stakeholders, ensuring that they have an opportunity to provide input to LM's decision-making process."** Due to the provisions of the RFLMA, public participation should not be delayed, dismissed or ignored as outlined in the USDOE PFAS Strategic Roadmap. (Emphasis added). Any references to side-agreements regarding USDOE responses to the public are meritless and are not within the meaning of the RFLMA that we do not waive.

The Rocky Flats Site (Rocky Flats), a National Priorities List (NPL) - CERCLA - site since September 1989, is owned and operated by US Department of Energy (USDOE), Office of Legacy Management (LM) at Washington, D.C., Grand Junction, Colorado with the local Westminster, Colorado office under the responsibility of the Energy Secretary to protect human health and the environment. In addition to being a CERCLA site, USDOE also provides a noncompetitively funded financial assistance award to David Abelson, as recipient project director/business officer and the Rocky Flats Stewardship Council (RFSC), a local stakeholder organization, a Colorado municipality and an enterprise by Intergovernmental Agreement (IGA); and, with the 2007 RFLMA USDOE awards annual "grants" to CDPHE. USDOE also directs and financially supports the Rocky Flats National Wildlife Refuge (RFNWR) and US Fish and Wildlife Service at the Refuge.

Since 2007, Rocky Flats is currently regulated by a federal facility compliance agreement (RFLMA) with regulatory oversight by USEPA and CDPHE, to include public participation. USDOE awards an annual “grant” to CDPHE and has designated millions of US taxpayer funds for oversight grant funding regarding RFS to the State of Colorado since June 1989.

The RFLMA documents that USDOE/LM admits to and is the responsible party subject to liability for past and **present** releases of radioactive, hazardous waste, mixed wastes (both radioactive and hazardous wastes) and hazardous constituent contamination at RFS and to effectively and efficiently manage human and environmental legacy issues related to the US Government's nuclear weapons program for current and future generations. (Emphasis added).

USDOE admits that hazardous substances (mixed wastes, hazardous wastes and hazardous constituents) have been released into the environment at RFS. USDOE is the responsible party under CERCLA, and must comply with RCRA and Colorado Hazardous Waste Act (CHWA) for cleaning up such releases and comply with a selected corrective measure alternative or alternatives to remediate a release of hazardous constituents or wastes. Certain wastes and constituents at RFS are hazardous wastes or hazardous constituents as defined by section 1004(5) of RCRA, 42 U.S.C. § 6903(5), 40 C.F.R., Part 261, section 25-15-101(9) of CHWA, and 6 CCR 1007-3, Part 261.

USDOE entered into and is bound by RFLMA pursuant to section 120(e) of CERCLA, 42 U.S.C. § 9620 (e); §§ 6001, 3008(h), and 3004(u) and (v) of RCRA, 42 U.S.C. §§ 6961, 6921(h), 6928(u) and (v); Executive Orders 12088 and 12580; and the Atomic Energy Act of 1954, as amended (AEA), 42 U.S.C. § 2011 et seq. USDOE admits to being a “person” under CERCLA, RFS is a “facility” as defined by CERCLA and USDOE is the “owner” of RFS under CERCLA.

In addition to being a CERCLA site, USDOE/LM also provides a noncompetative financial assistance award (10 CFR 600.6(c)(8), contract #DE-FG01-06LM00080, to documented recipients, David Abelson (and current Environmental Management Advisory Board - EMAB - and special government employee) and RFSC, a local stakeholder organization (P. Law 108-375 Section 3118) with four (4) federal statutory responsibilities (§ 3118(c)(1-4)). The 2006 Intergovernmental Agreement (IGA) established RFSC pursuant to Colorado Constitution Article XIV, Section 18(2), part 2 of article 1, Title 29 C.R.S. with Boulder County, Jefferson County, City of Arvada, City of Boulder, City and County of Broomfield, City of Westminster, Town of Superior, City of Golden and City of Northglenn, as amended in 2012 and 2018. RFSC shall be a political subdivision, unit of local government of the state of Colorado and subject to

lawful appropriations by respective IGA parties and provisions of Article X, Section 20 of the Colorado Constitution and enterprise. Among other powers, RFSC shall solicit and accept funds and in-kind contributions in whatever form, including grants, donations or loans. (IAG at 4.c.).

The 2007 RFLMA provides for the Recovery of State Costs. (Part 14, paragraphs 72-73). USDOE/LM agrees to reimburse CDPHE for certain costs to include administrative or oversight activities under 6 CCR 1007-3. For example, in its Calendar Year (CY) 2022 Grant Request for January - December 2022, dated November 2021, CDPHE requested \$220,738 for the following purpose: "Ensure that the environment and health and safety of Colorado's citizens are being protected through oversight by Colorado officials." In a letter dated December 13, 2021 CDPHE requested \$366,000 carryover funds, federal award DE-FG01-08LM00137, for CY2022 and possibly in future years. CDPHE entered into the RFLMA pursuant to sections 104(d), 120(f), 121, and 310 of CERCLA, 42 U.S.C. § 9604(d), 9620, and 9810; section 3006 of RCRA, 42 U.S.C. § 6926; and the Colorado Hazardous Waste Act ("CHWA"), section 25-15-301 et seq. C.R.S. Requirements of this Agreement that relate to RCRA and CHWA are a Compliance Order on Consent issued by CDPHE pursuant to section 25-15-308(2), C.R.S.

USEPA entered the RFLMA pursuant to sections 104 and 120(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9604, and 9620(e), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter jointly referred to as CERCLA); sections 6001, 3008(h), and 3004(u) and (v) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6961, 6928(h), 6924(u) and (v), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), Pub. L. 98-616 and the Federal Facility Compliance Act of 1992, Pub. L. No. 102-386 (hereinafter jointly referred to as RCRA); and Executive Orders 12088 and 12580.

OVERVIEW

In 1945 the US Government detonated three (3) atomic weapons during World War II that generated the atomic age, nuclear arms race and uncontrolled extent of nuclear and toxic waste handling, safety and repository issues. Under the veil of national security the proliferation of nuclear weapons, not public health and the environment, was a US defense priority. In about 1951 the US government acquired land near Golden, Colorado to construct and operate the Rocky Flats Nuclear Weapons Plant (Rocky Flats). The location northwest of Denver was, in part, selected based upon a flawed understanding of prevailing wind conditions of the actual site. Rocky Flats was a weapons-

grade plutonium-239 bomb manufacturing facility involving activities and operations to produce the atomic bomb trigger component, utilizing thousands of toxic chemicals (including PFAS) and conduct classified experiments. At the time when Rocky Flats was opened, meaningful personnel safety and environmental laws in the US were essentially non-existent, and this continued to be the situation of many USDOE-owned facilities during the Cold War era.

In 1952 Rocky Flats commenced activities and operations in support of the US nuclear weapons complex. Rocky Flats experienced accidents, controlled and uncontrolled criticalities, fires (industrial buildings in 1957 and 1969 and open pit), open trench nuclear waste burial, spills and released its contamination off site to include public drinking water supplies. As early as 1974 USDOE and its contractor attempted to comply with a Clean Water Act permit to discharge Rocky Flats effluent without disclosing the complete extent of pollutants to USEPA. By November 1980 USDOE and its contractor began to meet its Resource Conservation and Recovery Act (RCRA) filing responsibilities however structured its several RCRA Part A permit applications to distract from the true nature and extent of Rocky Flats activities, operations and mishaps and avoid regulatory scrutiny.

In 1984 it was legally determined that Rocky Flats and other federal nuclear weapons facilities were taking unwarranted RCRA exemptions for certain mixed radioactive/hazardous wastes that pitted the US Atomic Energy Act against RCRA. USDOE at RFS did not seek nor was granted a US Presidential RCRA exemption. USEPA measured Rocky Flats waste activities with a hazard ranking score that should have placed the facility on the NPL and commence corrective action. Instead, USDOE and its contractor countered with an overture to conduct its own independent Comprehensive Environmental Assessment and Response Program (CEARP 1986) and expend \$323 million in taxpayer funds to remediate Rocky Flats, to this day has not been completed. By 1986 USEPA and CDPHE determined that certain solid waste management units (SWMU) would need to cease operations for Rocky Flats to obtain its RCRA Part B permit. Rocky Flats was an antiquated construct of buildings, landfills, nuclear waste burial sites, pits, ponds, subsurface features and trenches without a complete accounting of nuclear and hazardous waste activities. Otherwise, Rocky Flats would be operating illegally or need to shutter its operations. The USDOE contractor at RFS openly tested the regulatory mandate and pejoratively ignored the State of Colorado order to cease operations of certain SWMUs to ensure continued Rocky Flats activities and operations.

In May 1987 the Federal Bureau of Investigation (FBI) commenced a federal environmental crimes and conspiracy investigation concerning Rocky Flats activities and operations. The predication was based on a 1986 Briefing

Memo by a USDOE attorney for USDOE executive management and US Military officials. The Briefing Memo in part characterized some patently illegal waste operations at Rocky Flats. In June 1989 two federal criminal search warrants were executed by the FBI and USEPA at the Rocky Flats crime scene that ceased the manufacture of plutonium trigger bombs. In September 1989 the Rocky Flats contractor sued USDOE and USEPA alleging, in part, that compliance with land disposal restrictions would be impossible if Rocky Flats continued to operate. Also in September 1989 USEPA placed Rocky Flats on the CERCLA National Priorities List. By December 1, 1989 then-Energy Secretary James D. Watkins halted Rocky Flats production for an unspecified time for safety and environmental problems: "mismanaged by my own department;" ... "The screw-up was in management, not the plant;" ... "It's time for a fundamental change of the culture" of the Energy Department; and, "It takes years to change a culture." (Watkins; 1989; Washington Post).

In June 1992, Rockwell International, the USDOE at Rocky Flats contractor who was operating Rocky Flats at the time of the federal criminal search warrant, pled guilty to four (4) felonies and six (6) misdemeanors that included the illegal utilization of RCRA closed SWMUs since 1986. Rocky Flats activities and operations knowingly contaminated more than 25,000 adjacent acres and two municipal drinking water supplies (Great Western Reservoir and Standley Lake).

The hegemonic long-shadow of USDOE at Rocky Flats continues in the present in spite of the mutually-agreeable regulatory actions of CDPHE and USEPA with the 1996 Rocky Flats Cleanup Agreement (RFCA) and the current 2007 RFLMA. Both the RFCA and RFLMA are Tri Party (CDPHE, USDOE and USEPA) Agreements, USDOE is the lead responsible party subject to CERCLA and RCRA liability for the release of hazardous waste and/or constituents thus subject to regulatory corrective action requirements. Regulators (and the public) depend on USDOE self-review of its own records, institutional knowledge and full disclosure to assess an appropriate USDOE hazardous waste/constituent response or corrective action.

With respect to statutory obligations to public stakeholders, through agreements such as the current RFLMA, USDOE does not have a good track record in being candid, cooperative, or truthful. This is not only a problem with Rocky Flats, but is symptomatic of a deeper cultural issue at USDOE in the Office of the Undersecretary for Science; e.g., reference USDOE's contemptuous treatment of residents living near the Portsmouth plant in April-May 2019. Bad-faith actions undertaken by USDOE's EM and LM programs of multiple facilities reveal a mindset that USDOE views itself as being outside of any Federal or State oversight besides the Atomic Energy Act. Ultimately, USDOE is apparently attempting to stifle regulatory RFLMA action, as USDOE appears to disagree with

proposed regulatory response actions, despite its well-defined federal facility responsibilities under RCRA.

In his January 27, 2021 “Memorandum for the Heads of Executive Departments and Agencies” President Biden communicated, in part: “Improper political interference in the work of Federal scientists or other scientists who support the work of the Federal Government and in the communication of scientific facts undermines the welfare of the Nation, contributes to systemic inequities and injustices, and violates the trust that the public places in government to best serve its collective interests.” The derisive regulatory responses of USDOE at RFS has diminished confidence that RFS is CERCLA protective of human health and the environment.

With independent verification, involved and capable leadership the Energy Secretary is able to resolve the following issues to its logical conclusion that would begin to restore public trust in government, “... reducing nuclear danger and remediate the environmental harms caused by legacy defense programs” at RFS. (Granholm; 2022; USDOE Leadership web page).

EMERGING CONTAMINANTS AT ROCKY FLATS, INEEL AND WIPP

Reference Jon Lipsky’s public comment to USDOE via RFSC dated October 31, 2021, posted on the RFSC Public Comment tab “Public Comment, Jon Lipsky (2) - November 1, 2021”; and, “DOE Responses to Jon Lipsky - October/November 2021.”

Since the 1930s, Per- and Polyfluoroalkyl Substances (PFAS) have existed in thousands of compounds including PFOA and PFOS. Rocky Flats operations included the use of PFOA/S in its manufacturing processes and fire suppression (Aqueous Film Forming Foam or AFFF), the latter since the mid-1960s. PFAS compounds are long-chained stable molecules, miscible in water and the contaminants are threats to public health and the environment at extremely low levels in pathways for human consumption. The Rocky Flats Site contains the headwaters for three navigable waters of the US; Rock Creek, Walnut Creek and Woman Creek, capable of transporting PFAS contamination towards inhabited areas in close proximity and beyond. The lack of transparency by PFAS manufacturers to publicly disclose its health effects until recently and initial US government studies of the compounds indicate a threat to public health and the environment.

Approximately four (4) years ago the Colorado Water Quality Control Commission (CWQCC), Policy 20-1, added per- and polyfluoroalkyl substances (PFOA/S) and its anions to the Colorado Hazardous Waste Regulations (CHWR),

Section 261, Appendix VIII as hazardous constituents. The CWQCC action determined a translation level, individually or combined, at 70 parts per trillion (ng/L). CDPHE enforces the investigation and corrective action determinations for PFOA/S, to include federal facilities like RFS in Colorado. USDOE agreed to be encumbered by this emerging contaminant regulation, among other things. The referenced August 2022 USDOE 'PFAS Strategic Roadmap' is outdated at RFS.

On September 19, 2018 Lindsay Murl (nee Masters), CDPHE, sent a letter to Scott Surovchak, USDOE/LM at RFS regarding PFOA/S Request for Groundwater Screening Proposal. CDPHE added PFOA/S to the list of Appendix VIII Hazardous Constituents in Part 261 CHWR. Since RFS is a RCRA federal facility currently performing CERCLA corrective action pursuant to an order or RCRA permit that may have released PFOA/S will be required to investigate for releases and perform corrective action as necessary. Initially RFS may screen for groundwater data. If PFOA/S is found in groundwater additional sampling of both groundwater and soil may be required. To begin the process CDPHE requested a proposal within 30 days with six (6) required types of information on page 2 of the letter.

On October 19, 2018 Scott Surovchak (now retired), USDOE/LM at RFS, responded to Lindsay Masters' letter of September 19, 2018. The subject of the USDOE letter is "Proposal for PFOA / PFOS Evaluation at the Rocky Flats Site, Colorado." Surovchak first demanded that an RFS records search will be conducted and provided by December 15, 2018, two months after the CDPHE deadline. "This evaluation will then conclude. A similar approach was conducted and completed at the U.S. Department of Energy's LM Mound, Ohio, Site, which satisfactorily demonstrated to the U.S. Environmental Protection Agency and the State of Ohio that neither PFOA and PFOS were used at that site." Though matters related to the Mound Site are outside of the scope of this document, the writers believe Mr. Surovchak's statements to be inherently unreliable, and find it imperative that independent, non-USDOE involved sampling/analytical efforts be used to examine environmental conditions near Mound in a specific survey for PFAS. USDOE delay and distraction became apparent with Mr. Surovchak's response to CDPHE.

On October 25, 2018 Lindsay Masters, CDPHE, responded to Surovchak's, USDOE/LM at RFS, letter of October 19, 2018, "DOE Proposal for PFOA/PFOS Evaluation (October 19, 2018) HMWMD File number - RFP 4." CDPHE offered additional time to USDOE to conduct its records search however contended that site records may not contain specific PFOA/S use and CDPHE disagrees with USDOE proposal that sampling will not be necessary. CDPHE stated it is well documented that AFFF was utilized at RFS along with PFOA/S industrial use with specifics. DOE must submit its records analysis and sampling proposal for CDPHE

review and approval no later than Thursday, January 31, 2019. Unfortunately, Rocky Flats manufacturing processes with PFAS was not emphasized.

USDOE at RFS submitted its Sampling for PFOA/S at RFS, Colorado dated January 2019 to CDPHE. The USDOE at RFS perfunctory document search focused on keywords only relating to fire, as suggested by CDPHE, that escaped and pretermitted documented RFS manufacturing processes. USDOE at RFS is and continues to be subject to RCRA regulations as evidenced by USDOE being a signatory of the RFS federal facility compliance agreement or RFLMA of 2007. RCRA requires a hazardous waste generator to definitively explore and disclose its "Acceptable Knowledge" in generating hazardous waste. (RCRA Part 262.11(c)). A parameter of RCRA Acceptable Knowledge is "Process Knowledge," (chemical feedstocks, other inputs to the manufacturing process, knowledge of products, by-products and intermediates produced by the manufacturing process). (RCRA Part 262.11(d)(1)).

USDOE has publicly made available a plethora of RFS documents relating to its previous activities and operations in the fabrication of approximately 70,000 plutonium-bomb triggers for atomic bombs since the FBI search warrant execution in June 1989 and NPL status in September 1989. The publicly available RFS documents do not escape public scrutiny or participation only USDOE acknowledgement. USDOE/LM is required by CERCLA to maintain the RFS Administrative Record however the USDOE/LM website for RFS is not up to date. PFOA/S chemicals were not limited to RFS fire suppression.

USDOE at RFS site historical knowledge was somewhat impeded by the fact that PFOA/PFOS were not regulated as RCRA hazardous constituents in Colorado until 2018, or 29 years after RFS NPL status, and Material Safety Data Sheets (MSDS) of brand named chemicals were not necessarily identified or linked to PFAS constituents. The former manufacturing process at RFS that concluded in 1989 utilized name brand chemicals, Teflon was one of the products containing PFAS. CDPHE submitted a cautionary instruction or items to avoid to USDOE to refrain from using Teflon containing equipment, materials made with fluorinated polymers, waterproof books and papers, Post-It Notes, chemical ice packs, Tyvek, etc., during the sampling effort. In its January 30, 2019 response to CDPHE, USDOE/LM at RFS did not connect or concern itself to search for RFS historical site documents of manufacturing with such ingredients (Process Knowledge) as Teflon and presented eight (8) sampling locations were identified, limited to fire department and fire training areas, without corrective action plans. Considering the ~ 1300 acre site of the RFS Central Operating Unit, eight sampling locations cannot, by any means, be considered to a sufficient survey.

The Historic American Engineering Record (HAER) for RFS Building 460 operations, known to USDOE/LM, beginning in 1985 states in part: "The stainless steel operations conducted in Building 881 and some nonnuclear metal working operations from Building 444 were transferred to Building 460 after its completion. In addition to stainless steel, parts were also manufactured from aluminum, vanadium, copper, gold, silver, magnesium, titanium, Teflon, and plastics. Manufactured components were used in the tritium reservoir-to-pit delivery system in nuclear weapons." It is well known that PFAS compounds have been used in metal finishing processes such as electroplating; nevertheless, it appears USDOE has not made any effort to understand or convey these processes, and potentially other, past non-AFFF PFAS usages at RFS.

The USDOE/LM 'screening locations' omitted suspect contaminated-soil locations and its outfalls including the Triangle Area at 207 solar evaporation ponds, Building 460, Building 771, Building 774, Buildings 776/777, Building 881, A-Series ponds (1-4) on North Walnut Creek, B-Series ponds (1-5) on South Walnut Creek, and Triangle Area (Individual Hazardous Substance Site #165) and its outfall. The USDOE/LM Buffer Zone report of 9/30/2014 details the 320 tons of plutonium and ostensibly PFAS contaminated soil from the May 1969 fire east of Building 881 on page 189 and drums containing fire waste from the 1969 fire were stored in the Triangle Area on page 191.

Rocky Flats Health Physicist E.A. Putzier (deceased) authored an official memoir, Energy Contract DE-AC04-76DPO-3533, regarding his 30 years at Rocky Flats from 1952-1982. Putzier noted that Buildings 776/777 fire debris was placed in the Triangle Area that is supported by USDOE documents. The debris was placed in leaking containers that would have contaminated the soil, south Walnut Creek and Walnut Creek in the late 1960s and early 1970s. Putzier also wrote that RFS management rerouted Building 774 aqueous effluent from the South Walnut Creek ponds directly to Building 995 sewage treatment plant and the sludge from Buildings 776/777 fire-sludge was disposed offsite. Building 774 also disposed of aqueous wastes in the 207 Solar Evaporation ponds.

An April 1992 Facility History for RFS Building 771 states that Building 771 valve gaskets contained Teflon. Another logical source of AFFF contamination is the Present Landfill. As with the 1957 fire in RFS Building 771, Putzier recommended filtering the 1969 fire effluent through the sewage treatment plant and disposing of the PFAS contaminated solid waste in the Present Landfill. The Old Landfill was closed in 1968 prior to the 1969 fire.

Beginning May 31, 2019, in addition to the eight (8) original PFAS sampling locations at RFS, Location ID number 2784, reference RFS01-15,1905001-003 appeared. The laboratory notes indicate that sampling Location 2784 is in the

vicinity of RFLMA Point of Compliance (POE) on Walnut Creek (WALPOC) where the creek exits the RFS Central Operating Unit and enters Rocky Flats National Wildlife Refuge (RFNWR). Sampling location 2784 PFAS results were not detected in May 2019. However, the July 30, 2019 analytical results for sampling location 2784 resulted in 130 ng/L for PFOA and 300 ng/L for PFOS for a combined total of 430 parts per trillion, exceeding the 70 parts per trillion standard. Both PFOA/S values for sampling location 2784, individually and combined, exceeded the 70 parts per billion standards without a corrective action plan.

The May 14, 2019 "NM/JL/JB" PFOA/PFOS sampling handwritten notes state: "At WALPOC. Evaluate grab location. ... Field blanks completed. Have labels for Field item, #2784. Will contact Steve Donovan to discuss, confirm "Trip Blank" vs. "Field Blank."

The "Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites," document under contract number 89303020DLM000001, effective May 19, 2021, defines field blank: "A sample that is prepared in the field to evaluate the potential for contamination of a field sample by site contaminants from a source not associated with the sample collected (for example air-borne dust or organic vapors). Field blanks are typically collected only when contamination from field (ambient) conditions is suspected."

In a cover letter dated January 13, 2021 Andrew M. Keim, USDOE at RFS, provided Lindsay Murl, CDPHE with its "Sampling and Analysis Plan for PFAS at the Rocky Flats Site, Colorado, January 2021." Keim wrote, "Fieldwork as described in the SAP will not begin until the SAP and corresponding Contact Record have been approved and finalized."

The sampling plan noted that PFOA/S were detected above the standard at two of eight locations. The goals of the study do not include corrective action. (Ibid at p. 3). At 6. Specify Performance or Acceptable Criteria, "PFAS analyses at the Site is based on site-specific knowledge, professional judgment, and collaboration among the RFLMA Parties." (Ibid at p. 3). Please note that USDOE/LM at RFS did not follow RCRA Acceptable Knowledge protocols. Despite the existence of the 2006 CAD/ROD, ARARs and 2007 RFLMA, USDOE stated that PFAS sampling is not part of the routine monitoring required by the RFLMA and will be reported separately from current routine RFLMA reports. Also, because the RFLMA is an enforceable agreement among the Tri Parties, current routine monitoring obligations under RFLMA take priority over PFAS sampling efforts. (Ibid., at p. 4). On page 5, Sampling Locations, USDOE conceded the most likely industrial sources of PFAS at RFS are firefighting foams and metal plating operations to include two closed landfills. The plan identifies 12 sampling locations.

On April 28, 2021 Lindsay Masters, CDPHE, documented further insight concerning "PFAS at Rocky Flats" with her email response to Shelley Stanley, City of Northglenn, Colorado, Northglenn Water Quality Coordinator, lodged regulatory concerns for PFAS at RFS. Information is not available on the USDOE/LM RFS web site, foreclosing potential public involvement. On April 26, 2021 Stanley emailed Masters that PFAS at Rocky Flats could potentially impact Northglenn's wastewater permit.

In her April 28, 2021 email, Masters informed Stanley on the status of PFAS at Rocky Flats since 2018 and CDPHE's April 22, 2021 conditional approval of USDOE's January 2021 PFAS Sampling and Analysis Plan. Two of USDOE at RFS PFAS sampling locations were required for biannual testing and the EPA Health Advisory level of 70 parts per trillion was not exceeded at the Walnut and Woman Creeks Points of Compliance. CDPHE is requiring USDOE/LM at RFS to sample additional points. "Once additional sampling is conducted and the results are reported, these will of course be part of the Rocky Flats public record."

On June 10, 2022 Andrew Keim, USDOE/LM Site Manager responded to RFSC public comments dated October 31, 2021 at the urging of David Abelson. Abelson explained to Keim that Abelson and Surovchak had a 'side-agreement' that USDOE at RFS would respond in writing to the public. "The regulatory decision regarding PFAS are documented via CDPHE letter with detailed information in the 2021 RFS Sampling and Analysis Plan (SAP) for upcoming PFAS sampling and analysis efforts; the CDPHE letter of 2021 essentially negates the need to publish a RFLMA Regulatory Contact Record; Sample 2784 is not a sample location, a field blank, analytical results did not exceed 70 ng/L. Corrective action measures is not currently required by CDPHE while the nature and extent of PFAS contamination at RFS has not been completely delineated; USDOE at RFS is subject to the decision of the CWQCC, Colorado Hazardous Waste Regulation, Part 261 as well the RFS 2006 CAD/ROD applicable or relevant and appropriate requirements (ARARs); The current PFAS sample locations do not represent every possible source of PFAS at the site. Their selection was tailored to areas with the highest potential for PFAS based on historical site operations, interviews with former RFP fire department personnel, and industry-wide knowledge of potential PFAS sources (e.g., landfills)."

In consideration of Andrew Keim's June 10, 2022 revelations, indeed, Mr. Keim conclusively contradicted himself, in writing. In his January 13, 2021 letter to CDPHE, Keim wrote that the USDOE PFAS sampling plan would not begin until a corresponding RFLMA Contact Record was approved and finalized (and published on the USDOE LM Rocky Flats web page). According to Mr. Keim,

USDOE at RFS stubbornly would not implement the PFAS SAP and pretermitted PFAS contamination sources at RFS. USDOE/LM at RFS also asserted that “[the PFAS HAL is non-enforceable and non-regulatory.” (USDOE; 2021; p. 2, footnote 1). Then on June 10, 2022 Mr. Keim wrote that a RFLMA Contact Record is not required. The absence of the RFLMA Contact Record for PFAS, CDPHE April 22, 2021 letter and USDOE at RFS, SAP on the USDOE, LM, RFS web site negates and denies public involvement in the RFLMA process. (Appendix 2 of the RFLMA). Please note this is not an exclusively isolated incident of USDOE failing to publish a RFLMA contact record on its RFS web site thereby denying public participation.

Contact Record: When site conditions (institutional control variance), reportable conditions at RFS Point of Evaluation (POE) or reportable conditions at RFS Point of Compliance (POC) warrant USDOE entering into the consultive process with regulatory authorities as described in the RFLMA, USDOE/LM at RFS will initiate a contact record of discussions between LM and the regulatory agencies (CDPHE, USEPA). Contact Records are to be made available to the public on the LM web site as early in the process as is practicable following signature approval by the parties. Once a Contact Record is published on the LM web site the public is confined to a 10-day comment period.

In a memorandum dated December 1, 2020 Mark Gilbertson, Associate Principal Deputy Assistant Secretary for Regulatory and Policy Affairs, USDOE, announced “Per-Polyfluoroalkyl Substances: Assessment of Use and Potential Presence at Office of Environmental Management (EM). The memo referenced the EPA PFAS action plan in 2019 and updated in 2020, Safe Drinking Water Act (SDWA) regulations for PFOA/S and other issues. The memo was not officially distributed to USDOE/LM officials.

The gravest anxiety for public health as expressed by two municipalities, adjacent to RFS, that provide safe drinking water to residents, have documented their concerns to CDPHE concerning RFS PFAS contaminating their drinking water supplies and the April 22, 2021 regulatory attempt is delaying corrective action measures. The latter is most likely as USDOE at RFS, 1) PFAS contamination has not been completely delineated; 2) RFS PFAS locations do not represent every possible documented source of PFAS at the site that should be investigated with sampling and corrective action plans; 3) PFAS sampling locations were tailored to areas with the highest potential for PFAS based on present-day USDOE limitations of historical site operations, interviews with former RFS firefighters and industry-wide knowledge of PFAS sources, parameters inconsistent with USDOE published information on historical site operations and documented waste streams, comprising RCRA Acceptable Knowledge as required.

USDOE/LM's extra-legal version of RCRA Acceptable Knowledge - Process Knowledge - is to also eliminate analytes utilized at RFS due of a lack of a 'mappable plume.' For example, in June 2006 USDOE and its contractor authored a RCRA Facility Investigation - Remedial Investigation/Corrective Measures Study - Feasibility Study Report for the Rocky Flats Environmental Technology Site: Section 4.0, Nature and Extent of Groundwater Contamination. Hundreds of analytes were eliminated, not for lack of RCRA Process Knowledge relevance, because USDOE decided that "If a contiguous, mappable plume does not exist, the analyte is eliminated." (p. 4-9).

The Present Landfill (PLF) Seep Influent (PLFSEEPINF) is one of the two USDOE/LM at RFS PFAS evaluation points with PFOA/S contamination greater than the 70 parts per trillion (ppt) standard. The PLF was placed into service at RFS in 1969 and prior to the 1969 Mother's Day fire and with the implementation of RCRA should have been subjected to RCRA Closure. The PLF was not removed, instead, the PLF Treatment System remains part of the CERCLA remedy at RFS. It is one of the reasons that the RFS remedy has failed. In addition, PFOA/S contaminated runoff effecting erosion mats, wood straw, FlexTerra, wattles, straw bales, silt fences, etc., should be properly disposed of other than an offsite sanitary landfill.

USDOE/LM at RFS has not definitively explored and reported its PFAS contamination and disposal issues nor tendered a corrective action plan. Based on the limited PFAS sampling and analysis plan by USDOE any attempt by USDOE/LM to offer a corrective action plan would be incomplete as required by CDPHE. In addition, the PFAS at RFS problem is not under control questioning the CERCLA protectiveness that the remedy is functioning as intended including exposure assumptions, toxicity data, cleanup levels and valid remedial action objectives whether RFS remains protective of human health and the environment.

USDOE RFS Transuranic and Mixed Hazardous Wastes at Idaho National Engineering and Environmental Laboratory and Waste Isolation Pilot Plant

RFS historically shipped transuranic mixed hazardous waste to the Idaho National Engineering and Environmental Laboratory (INEEL), when it was not diluted (volume reduction), for storage and eventual shipment to the Waste Isolation Pilot Plant (WIPP), New Mexico. In its 1982 "History of Rocky Flats Waste Streams" summary report the Idaho National Engineering and Environmental Laboratory (INEEL or INEL) studied RFS transuranic (tru) hazardous mixed waste shipments (1971-1979) to INEL for permanent storage. RFS did not maintain waste shipments prior to 1971, RFS shipping and handling procedures prior to 1975 were

destroyed and INEEL conducted general characteristics of RFS waste. In other words, INEEL and RFS did not know what RFS waste shipments specifically contained.

In February 2003 INEEL published its “Acceptable Knowledge Document for INEEL Stored Transuranic Waste - Rocky Flats Plant Waste.” The re-investigation of RFS wastes at INEEL was prepared for disposal of the wastes at WIPP, 3,100 m3 Project. The inventory of RFS transuranic and mixed hazardous waste generated from 1971 through 1988 was to be a consistent, defensible, and auditable record of RCRA Acceptable Knowledge for wastes generated at RFS for final disposal at WIPP. INEEL began shipping RFS transuranic and mixed hazardous wastes to WIPP in 1999 that was recently completed. The 2003 INEEL study most likely did not include PFAS compounds.

Indeed, RCRA Acceptable Knowledge requirements for generators of hazardous wastes is also a USDOE requirement. USDOE Order, DOE M 435.1-1 approved on July 9, 1999 is the Radioactive Waste Management Manual which describes the requirements and establishes specific responsibilities for implementing DOE O 435.1, Radioactive Waste Management. The USDOE Order adopted the identification of waste composition and properties, by review of Acceptable Knowledge (including process knowledge), a USDOE glossary term - characterization definition - and Federal Register citation published November 20, 1997.

A State of New Mexico, New Mexico Environment Department, Hazardous Waste Bureau representative advised that New Mexico has not included PFAS chemicals in its RCRA, Part 261 list of hazardous waste or constituent list. However, New Mexico controls the WIPP RCRA permit and after discussing the PFAS implications in RFS transuranic and hazardous mixed wastes shipped from INEEL to WIPP, New Mexico intends to explore adding PFAS compounds to the WIPP RCRA disposal permit.

CONCLUSION

It has been four (4) years, since 2018, that USDOE/LM at RFS has been notified that PFOA/S and its anions were included in the CHWR, Part 261 as hazardous constituents. With the July 21, 2022 USEPA letter USDOE has been gifted an additional four (4) years to comply with Colorado PFAS hazardous constituent laws. This is not the trust that the public places in government to best serve its collective interests that President Biden envisions especially since USDOE is overlooking known PFAS contamination points at RFS.

USDOE/LM at RFS has agreed to many regulatory requirements however USDOE/LM action has been remiss for public health and the environment. Nevertheless, in April 2021, recommendations were provided by USDOE Environment Management Advisory Board (EMAB) to the effect that USDOE sites are over-regulated compared to privately-owned sites is baseless. Honest services fraud are indicia of predicate acts for a criminal enterprise that may exist at USDOE/LM at RFS. It is time to shore up regulatory action at USDOE/LM at RFS with independent verification. We recommend that US Army Corps of Engineers replace USDOE/LM at RFS and resolve the RFS PFAS to its logical conclusion in a timely manner.

We recommend that the Army Corps of Engineers (USACE) replace USDOE/LM at RFS in all aspects of responsibility of the CERCLA site, and US public funds be transferred from USDOE to USACE to allow the latter to assume custodial responsibility for the RFS and its impacts on the RFNWR and nearby non US government property, including the high-priority matter RFS PFAS impacts in the affected watersheds as an urgent, unresolved matter. The unresolved matter is the May 24, 2022 Statement of Dispute under Rocky Flats Legacy Management Agreement (RFLMA) re pending Contact Record 2021-03 involving elevated weapons-grade plutonium-239 exceeding the standard by six (6) times at an RFS point of evaluation (SW027).

RFS is completely surrounded by the Rocky Flats National Wildlife Refuge (RFNWR) along with its flowing surface water effluent, groundwater aquifer drainage and fugitive airborne plutonium dioxide. USDOE maintains a controlling interest in the RFNWR by law, Public Law 107-107; Intergovernmental Agreements with US Fish and Wildlife Service (USFWS); and, millions of USDOE funds to USFWS to attract unassuming public visitors to the now open RFNWR. The precautionary principle should prevail with informed consent that does not exist at the RFNWR. The RFNWR should be closed to the public with a posted notice that RFNWR is contaminated with PFAS until further notice. Secretary Granholm's intentions - remediate the environmental harms caused by legacy defense programs - should be adhered to for the protection public health and the environment.