STATEMENT OF WORK

Disposal of Chemical Waste (Hazardous and Non-Hazardous) And Emergency Response Support Services at the National Institute of Standards and Technology – Gaithersburg and Department of Commerce Boulder Labs

I. BACKGROUND

The National Institute of Standards and Technology (NIST) is an agency of the U.S. Department of Commerce (DoC). NIST is a physical science laboratory with facilities located primarily in Gaithersburg Maryland and at the Department of Commerce Boulder Labs in Boulder Colorado. The Department of Commerce Boulder Labs includes NIST, the National Oceanic and Atmospheric Administration (NOAA), National Telecommunications and Information Agency (NTIA), and General Services Administration (GSA). NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve Americans quality of life.

The work on this contract will primarily focus on the NIST Gaithersburg, MD Site, the DoC Boulder Labs and one annual waste pickup at the NIST WWV/WWVB broadcast facility near Fort Collins, CO. The Gaithersburg site occupies almost 600 acres and includes over 60 Buildings and over 1000 research laboratories. The DOC Boulder Labs site occupies approximately 200 acres and includes 23 buildings. The NIST WWV/WWVB broadcast facility includes two (2) buildings. Some emergency response tasks may be required at the NIST Gaithersburg, MD and Boulder, CO Site. See VI.15 for scope and description of emergency response tasks.

NIST Gaithersburg is a large-quantity generator (LQG) of hazardous waste as designated by the U.S. Environmental Protection Agency (EPA) and the Maryland Department of the Environment. NIST Gaithersburg's EPA Generator ID number is MD5131531811. The DoC Boulder Labs is a small quantity generator (SQG) with EPA Generator ID number CO9131505175. NIST WWV/WWVB is a very small quantity generator (VSQG) with EPA Generator ID number COR000220723. Waste from all sites includes a broad range of hazardous and non-hazardous wastes generated from research and facilities maintenance activities. The range of chemical wastes are described in Section III below.

None of the NIST/DoC facilities identified in this SOW own or operate an EPA permitted treatment, storage, disposal or recycling facility (TSDRF). NIST is not an EPA Part A or B TSDRF. NIST Gaithersburg operates a waste management facility (Building 312) that serves as an interim, containerized, storage area for hazardous and nonhazardous waste chemicals. The accumulation period at Building 312 does not exceed 90 days for hazardous wastes. The DoC Boulder Labs operates a central accumulation area (CAA) in Building 23. Building 23 will be replaced when construction of Building 43 is completed. As an SQG, the DoC Boulder Labs accumulated waste onsite for up to 180 days or 270 days if no TSDRF within 200 miles will accept the waste. The DoC Boulder Labs rarely operates as an episodic large quantity generator.

The Environmental Management Group (EMG) at NIST Gaithersburg and NIST Boulder Safety,

Health and Environment Division (BSHED) Environmental Engineers are responsible for hazardous waste management. The NIST EMG requires a licensed/permitted contractor to:

- Pick up wastes from satellite accumulation areas or other points of generation on the NIST Gaithersburg Site and DoC Boulder Labs;
- Consolidate, pack and transport wastes;
- Perform the functions of treatment, storage, disposal and recycling of wastes at the contractor's facilities in accordance with applicable local, state, federal codes, statutes, and regulations; and
- Perform emergency response services and other specialty services described in this statement of work (SOW). See VI.15 for scope and description.

II. DEFINITIONS AND ACRONYMS

NIST: National Institute of Standards and Technology
SOW: Statement of Work
AMD: NIST Acquisitions Management Division
BSHED: NIST Boulder Safety, Health and Environment Division
CCR: Code of Colorado Regulations
CDPHE: Colorado Department of Public Health and Environment
CFR: Code of Federal Regulations
COD: Certificate of Disposal
COMAR: Code of Maryland Regulations
COR: Contracting Officer's Representative
DoC: U.S. Department of Commerce
DOT: Department of Transportation
EPA: Environmental Protection Agency
LDR: Land Disposal Restriction
LEPC: Local Emergency Planning Committee
NOAA: National Oceanic and Atmospheric Administration
NRC: National Response Center
NTIA: National Telecommunications and Information Agency
OEP: NIST Boulder Occupant Emergency PlanOSHA: Occupational Safety and Health Administration
PIT: Powered Industrial Trucks (also known as Forklifts)
RCRA Resource Conservation and Recovery Act
SERC: State Emergency Response Commission
ACOR: Alternate Contracting Officers Representative
TSCA: Toxic Substances Control Act
TSDRF: Treatment, Storage, Disposal or Recycling Facility
Bulking: Combining small quantities of compatible chemicals into a larger container (i.e. a 55-gallon drum).
Lab Pack: Compatible chemical wastes, in their original containers, that are packed into a larger container (i.e. a 55-gallon drum) and separated by an absorbing medium.
Waste: In this SOW, the term "waste" refers to acutely hazardous or hazardous waste (as defined by the Resource Conservation and Recovery Act), TSCA-regulated waste (typically PCB-containing fluorescent light ballasts), universal waste, regulated and "non-regulated" materials, non-hazardous waste (including paints and adhesives), biological/biohazardous, used oil and waste chemicals. Waste containing nanomaterials

is managed as hazardous waste. The types of wastes are defined in Attachment 1.

III. GENERAL DESCRIPTION OF WASTES GENERATED AT THE NIST GAITHERSBURG, MARYLAND AND BOULDER COLORADO SITES

NIST's typical chemical wastes include, but are not necessarily limited to:

- Chemicals used in cleanroom operations such as photoresists and developers;
- Halogenated hydrocarbons and derivatives such as Trichloroethylene, Dichloromethane, Chloroform, Chlorobenzene, and Tetrachloroethylene;
- Non-halogenated hydrocarbons and derivatives, such as Methanol, Ethanol, Acetone, Cyclohexane, Acetonitrile, Toluene, Benzene, and Tetrahydrofuran;
- Polychlorinated biphenyls (PCBs) including PCB fluorescent lighting ballasts, PCB containing chemicals, PCB contaminated transformer oils, PCB contaminated solvents;
- Degreasing solutions including, 1,1,1-Trichloroethene, acetone, mineral spirits and varsol;
- Electroplating wastes including Cobalt (II) chloride, Cobalt (II) sulfate, Chromium(II) chloride, Phosphoric acid, Boric acid, Nickel sulfamate, and Tin Fluoroborate;
- Inorganic Acids (concentrated, dilute and in mixtures) including Hydrochloric, Sulfuric, Hydrofluoric, Nitric, Perchloric, Chromic, Fluoroboric, and Hydrobromic;
- Inorganic Bases (concentrated, dilute and in mixtures), including Ammonium Hydroxide, Calcium Carbonate and Sodium Hydroxide;
- Organic Acids, including Acetic acid;
- Organic Bases, including Aniline, Tetramethyl ammonium hydroxide and Dimethylamine;
- Mercury and mercury compounds including contaminated debris;
- Paint shop wastes, including mixtures of paint (water based, alcohol, or oil-based paints) with varsol, paint thinners, paint strippers, and paint pigments;
- Machining Coolant Mixtures and Grinding Coolant Mixtures;
- Machining Oils and Lubricants;
- Compressed Gas Cylinders that may contain non-regulated, regulated, hazardous, and/or acutely hazardous gasses;
- Used oils, including specification oils (vacuum pump oils, motor oils, transformer oils) and off-specification used oils, (contaminated vacuum pump oils, contaminated transformer oils, petroleum spill cleanup residues, clean-out from oil- water separators, spent Freon-chiller compressor oils);
- Lab pack chemicals, NIST user-generated chemicals and contractor supplied chemicals;
- Metals including lead, cadmium, sodium and potassium;
- Biohazardous waste; and
- Other miscellaneous chemicals/articles, including recyclables, empty drums and containers, spent filters, and antifreeze.

IV. CONTRACTOR CRITERIA

1. As a company, the contractor shall demonstrate a minimum of 10 years of experience accumulating, characterizing, labeling, packing, manifesting, transporting and disposing of hazardous waste similar to those generated at the NIST/DoC facilities.

2. The contractor shall have offices within a 50-mile radius of the NIST-Gaithersburg Campus and DoC Boulder Labs. The office shall have been established for at least one year prior to the award date of this contract and be fully staffed and equipped to complete all tasks described in this SOW.

3. **Key Personnel Criteria:**

   a. **Primary Hazardous Waste Chemist and backup Hazardous Waste Chemist** shall each demonstrate no less than 5 years of experience accumulating, characterizing, labeling, packing, manifesting, transporting and disposing of hazardous waste similar to the hazardous waste types identified in Section III of this SOW.
   b. **Project Manager** shall demonstrate no less than 5 years of experience managing and overseeing performance involving accumulating, characterizing, labeling, packing, manifesting and disposing of hazardous waste similar to the hazardous waste types identified in Section III of this SOW.
      The Primary chemist can also act as a Project Manager.
   c. **All contractor staff working on the NIST Site** shall be trained in accordance with OSHA 1910 HAZWOPER.
   d. **All Hazardous Waste Chemists** shall be trained in accordance with DOT 49 CFR for Hazardous Material Shipment.
   e. **All transportation drivers** shall be trained and commercially licensed for Hazardous Material Transport in accordance with the 49 CFR.
   f. Any training, certification, or license required also includes all applicable federal, state, and local laws and policies as well as NIST requirements, including those specified in Section V herein.

V. APPLICABLE REGULATIONS AND NIST REQUIREMENTS

NIST requires strict compliance with all local, state [Maryland Department of the Environment-Code of Maryland Regulations (COMAR)], [Colorado Department of Public Health and Environment (CDPHE), Code of Colorado Regulations (CCR), including 6 CCR 1007-3] and federal [e.g., DOT, EPA, OSHA] regulations. The contractor shall obtain and maintain certifications, and comply with all relevant, applicable, and appropriate regulations. In addition to the regulations discussed above, the Contractor shall comply with all NIST Safety and Environmental Programs including Chemical Waste Accumulation and Disposal at NIST Gaithersburg, the NIST Gaithersburg Hazardous Waste Contingency Plan and Chemical Waste Accumulation and Disposal at NIST Boulder.

The Contractor must understand the NIST Environmental Policy and the Objectives of the NIST Environmental Management System.

The Contractor shall comply with OSHA's hazardous waste regulations promulgated under 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response). The contractor shall provide its staff/employees with appropriate personal protective equipment (PPE) and gear for the tasks described in this statement of work.

The Contractor shall meet or exceed the requirements of Code of Federal Regulations (CFR) 49 Part § 387— Minimum Levels of Financial Responsibility for Motor Carriers, including but not

limited to CFR 49 Part § 387.7—Financial Responsibility Required.

The prime contractor must own and operate an EPA Part A or Part B Licensed Treatment, Storage or Disposal Facility or Facilities (TSDF). The contractor must provide a plan to maintain access to the TSDF(s) across the entire period of performance and must have continuing access to the TSDF(s) to meet the NIST's normal and emergency waste needs.

The contractor must show proof of liability insurance minimum as follows:

$1m wrongful death, $1m personal injury, and $1m property; or $1m comprehensive commercial; or $250k for categories 1, 2, 3, and 4, totaling $1m).

REFERENCE:
https://www.ecfr.gov/cgi-bin/text-idx?SID=a768399e09e425f8d6921d6202ae7c11&mc=true&node=pt49.5.387&rgn=div5

The Contractor shall meet or exceed the requirements of -Code of Maryland Regulations (COMAR) 26.13.04—Standards Applicable to Transporters of Hazardous Waste, including but not limited to COMAR 26.13.04.01 (Liability insurance coverage and minimum insurance requirements, corresponding to CFR 49 Part § 387.7) and COMAR 26.13.04.04 (Bonding requirements) and 6 CCR 1007, Part 263 when operating in Colorado.-

REFERENCES:
http://www.dsd.state.md.us/COMAR/subtitle_chapters/26_Chapters.aspx#Subtitle13
State of Colorado Hazardous Waste Regulations

The prime contractor shall own and operate at least one currently permitted EPA Part A or Part B Treatment, Storage, Disposal (Recycling) facilities (TSDRFs) for hazardous waste disposal.

The Contractor shall meet or exceed all statutory and regulatory management obligations specified by the DOT regulations (49 CFR including compliance with HM-181 Hazardous Materials Uniform Transportation Safety Act) pertaining to acutely-hazardous, hazardous, regulated and non-regulated materials, substances, and wastes including, but not necessarily limited to:

1. Performing and documenting drop or leak testing,
2. Packaging,
3. Hazard classification, marking, labeling, and placarding
4. Handling, segregation, and bulking
5. Packaging, drumming, and over packing,
6. Filling out shipping papers and incident reporting,
7. DOT transporting,

Guidelines outlined in the Compressed Gas Association, Inc. Pamphlet# P1: *Safe Handling of Compressed Gases in Containers and the NIST Compressed Gas Safety Program* shall be strictly followed.

Minimum Acceptable Quality. One hundred percent (100%) compliance with stated rules and regulations is required.

VI. CONTRACTOR TASKS

1. Chemical Waste Pick-ups, Packaging and Shipment

The Contractor shall furnish all labor, materials, equipment, and transportation required to complete the following (tasks are further defined in items 2 through 14 below):

a. Picking up wastes from NIST Gaithersburg and DoC Boulder Labs satellite accumulation areas (SAAs) (primarily laboratories) on a weekly basis between 8:00am and 5pm (twice weekly at the DoC Boulder Labs, typically Tuesday and Thursdays dependent on campus conditions.) and transporting the wastes to Building 312 in a DOT approved enclosed box truck with a working lift gate (Gaithersburg) or in closed containers in secondary containment in a pickup truck, lift gate truck or box truck (Boulder).

b. Preparing an inventory of all wastes (hazardous and nonhazardous) that are stored in Building 312 (Gaithersburg) or Building 23/43 (Boulder) that is updated and posted each day that waste is brought into the building.

c. Classifying, segregating, lab packing, consolidating, labeling and packaging wastes <u>on the same day as the weekly pick-up (Gaithersburg). Lab packing may be delayed in Boulder if wastes are accumulated in cabinets with adequate storage space.</u>

d. Loading and securing the wastes for transport.

e. Properly manifesting all wastes (The contractor shall maintain a waste generation log for all containers).

f. Transporting and properly disposing of acutely hazardous, hazardous, regulated and non-regulated (as defined in 40 CFR) waste from the NIST Gaithersburg, Maryland site, DoC Boulder Labs and NIST WWV/WWVB.

g. Providing the Contracting Officer's Representative (COR) or alternate contracting officer representative (ACOR) with all completed manifests and certificates of destruction or recycling within regulatory specified time limits.

h. Maintaining access to a fleet of specialized vehicles capable of meeting NIST's requirements specified in this SOW, including prompt access to emergency equipment sufficient to ensure compliance with the requirements of Section VII of this SOW.

i. Biological decontamination of property, buildings or laboratories at the Gaithersburg, MD and/or Boulder CO (i.e. office space, auditorium, laboratory, hallways, etc.). The Contractor shall read and follow manufacturer's contact time instruction to treat/kill biological pathogens. Contractor shall choose and furnish products from the list of EPA-registered antimicrobial products appropriate for use against said pathogens such as Novel Coronavirus FAQs – Biorisk Management & Laboratory Safety, or from the list of Center for Biocide Chemistries https://www.americanchemistry.com/Novel-Coronavirus-Fighting-Products-List.pdf"
[*NOTE: CLIN's 200.10 (disposal pickup per load) and 200.60 (Box truck /liftgate for pickups per day) shall be billed separate from regular labor rate. On the day of a waste shipment that utilizes the same box truck for pickups and shipment truck CLIN 200.10*

shall be used for that day not both CLINS.]

2. Health and Safety and Emergency Response Plans

The health and safety of NIST employees and our Contractors' employees is a priority. The Contractor shall prepare a "Health and Safety Plan" specifically tailored to the work performed under this SOW and meeting the requirements of 29 CFR 1910.120(q) -- one plan for the Gaithersburg campus and one plan for the Boulder campus. The Health and Safety Plan shall specify the standard procedures to be implemented in the performance of the purchase order to ensure that tasks are conducted in a safe manner.

Accidents involving hazardous materials require quick action to prevent fire, explosion, injury, or death. The Contractor shall develop an "Emergency Response Plan" specifically addressing procedures that will be followed by all Contractor personnel.

In the event of an accident, inadvertent spill, chemical reaction, or fire, which results in the release of hazardous and/or regulated materials, the Contractor shall notify the NIST Fire Department (301-975-2222) and the Environmental Management Group (301-975-5375 option 3) immediately. In Boulder, the emergency number to reach the NIST/DoC Police is 303-497-7777. Any emergency can be reported to this number. Boulder Fire-Rescue can be reached by dialing 911, but the NIST/DoC Police must be notified to assist with getting emergency responders to the correct location.

In the event of an accident or spill of NIST waste during transportation, the contractor shall immediately notify the NIST Environmental Management Group (EMG) at 301-975-5375 option 3 and after-hours numbers provided by the EMG. In Maryland, a transporter that spills hazardous waste shall immediately notify, (if the spill meets the reportable quantities listed in 40 CFR 302), the National Response Center at 800-424-8802 and the Maryland Department of the Environment within one hour at: (410) 974-3551 or 866-633-4686. A follow-up written report to MDE is required within 30 days. In Colorado, spills occurring during transport must be reported immediately to the National Response Center at 800-424-8802, U.S. Department of Transportation, Colorado Department of public Health and Environment at 877-518-5608 and the Colorado State Patrol.

3. Security Plan

The Contractor shall take all reasonable precautions to ensure that the security of all NIST personnel, research programs, facilities, property, data, records, and materials are not jeopardized by contract operations.

Wastes and hazardous chemicals under the control of the Contractor shall be properly secured at all times. Under no circumstances shall carts or vehicles containing chemicals be left unattended. All waste chemicals shall be transported to Bldg. 312 or 23/43 and properly secured and segregated prior to leaving the area for the day.

<u>The Contractor shall prepare a Security Plan in accordance with 49 CFR 172 Subpart I.</u>

4. Waste Bulking

Small quantities of compatible material shall be combined into 55-gallon drums (bulking), the Contractor shall:

a. Review and evaluate all organic solvents and solvent mixtures received in individual containers to ensure that the solvents (i) would be compatible when mixed and (ii) will meet the waste profile sheet for that waste stream. Based on information provided by the researcher and any tests performed by the Contractor, the Contractor shall determine what waste solvents can be safely consolidated. No wastes regulated by EPA as acutely hazardous wastes shall be bulked in drums.

b. At least three weeks prior to shipments, the Contractor shall collect a composite sample from all of the bulked solvent or oil drum(s). This analysis shall represent the waste stream characterized to meet the requirements of the profile sheet to transport and dispose of the waste. The type of analysis performed will be determined by the COR prior to being conducted but shall contain a minimum of a PCB (polychlorinated biphenyls) analysis and shall be billed by line item cost. Generally, NIST uses process knowledge as provided by the researchers on the waste forms to characterize the waste streams. If a composite sample comes back off specification, individual samples of each drum shall be taken by the Contractor and sent out for analysis prior to shipment. Once the results come back, any suspect drums will be referred back to the container log sheets to help determine where the source of the off specification occurred. Only required for unknown waste in Boulder. Waste determinations have been performed for commonly generated wastes and are available to the contractor in Building 43.

c. For Gaithersburg, The Contractor shall maintain records of the bulked waste, to include the waste forms prepared by the researchers and a list of all chemicals, their approximate volume(s), and concentration that were consolidated from the original container into the drum. Only chemicals and volumes are required in Boulder. The Contractor shall use full chemical names when describing the contents of the bulked drums. Trade names shall only be used as an alternate name. The Contractor shall prepare waste contents sheets for each drum and related waste profile sheets.

d. As required by the COR, the Contractor shall perform sample collection and arrange for subsequent analysis for any wastes, which require additional analyses for disposal or to establish waste profile sheets.

5. Lab Packs

With regard to laboratory or lab-pack chemicals, the Contractor shall utilize packaging and handling methods which meet or exceed current EPA, OSHA, and DOT regulations, including hazard class segregation.

6. Disposal Documentation/Manifests

The Contractor shall obtain and prepare all current, required documentation to legally transport, store, treat, recycle, and properly dispose of NIST waste (e.g., hazardous waste manifests, continuation sheets, waste analysis or characterization forms, profile sheets, profile addendums, land ban disposal restriction notification/certification forms, packing slips, permits, and licenses). The contractor shall maintain the waste generation log. A current Uniform Hazardous Waste Manifest Form [U.S. EPA Form 8700-22 and 8700-22A (continuation sheet)] shall be used by the Contractor who transports or offers for transportation of acutely hazardous, hazardous and/or regulated waste for off-site treatment, storage, disposal, or recycling. All NIST

wastes regulated under the EPA Land Disposal Restrictions or Notifications (40 CFR 268) shall be managed and all applicable forms, notifications shall be completed, in accordance with all applicable land disposal restrictions, prior to removal from the NIST/DoC campuses. In addition, as outlined in 40 CFR 268.48, Table UTS-Universal Treatment Standards, all applicable NIST chemical wastes shall be treated in accordance with the Universal Treatment Standards [Note: The waste shall be treated using the technology specified (typically for the F, K, U, and P-listed wastes) or an equivalent treatment technology approved by the EPA.] When wastes with different treatment standards for a constituent of concern are combined for treatment, the treatment residue shall meet the most stringent treatment standard for the constituent of concern].

The Contractor shall provide an administrative tracking network to clearly document the movement of NIST's waste manifested from the NIST campus until their final regulatory disposition, i.e., furnishing NIST with either Certificates of Disposal or Certificates of Recycling as applicable. Certificates of Disposal and Certificates of Recycling specifically traceable to NIST's manifested shipments are to indicate NIST container information, method of disposal, date of disposal and the location, i.e., firm, city, state of treatment/disposal/recycling. Certificates of Disposal and Certificates of Recycling are to be furnished to NIST as soon as practicable, but not later than six months from the date the waste is removed from NIST.

7. Disposal Options and Priorities

NIST's wastes shall be disposed (at appropriate licensed facilities) using the following methods, in descending order of NIST priority/preference:

a. Recycling, reclamation, or reuse [if both economical/ environmentally sound];

b. Incineration;

c. Thermal Destruction/Thermal Treatment such as molten salt pyrolysis, calcination, wet air oxidation and microwave discharge;

d. Treating hazardous wastes:

   1) Physical processes--carbon or resin adsorption, distillation, centrifuging, flocculation, sedimentation, reverse osmosis, or ultra-filtration;

   2) Chemical processes--solidification, neutralization, ion exchange to remove heavy metals, oxidation, or precipitation;

   3) Biological processes--activated sludge treatment to destroy organic compounds, composting of organic-rich wastes, and trickling filters to promote decomposition.

e. Burial in an EPA Part B permitted secure chemical landfill. (lowest NIST priority);

Any one of the disposal methods listed above, or any combination(s) thereof, may be used to render NIST waste a non-hazardous/non-regulated waste or to transform it into a waste that is treatable via other means, i.e., incineration, or thermal destruction.

NIST's waste minimization policy is to reuse, recover, or recycle if these options are not cost prohibitive or otherwise prohibited (e.g., not environmentally sound or prohibited by regulation).

The following wastes shall be recycled: specification used oils; used oil filters; used tires; fluorescent light bulbs (containing mercury); used drums; liquid mercury; precious metals. The following is a list of potential disposal operations which may lead to resource recovery, recycling, reclamation, direct re-use or alternative uses:

1) Use as a fuel (other than in direct incineration) or other means to generate energy.
2) Solvent reclamation/regeneration.
3) Recycling/reclamation of organic substances, which are not used as solvents.
4) Recycling/reclamation of metals and metal compounds.
5) Recycling/reclamation of other inorganic materials.
6) Regeneration of acids or bases.
7) Recovery of components used for pollution abatement.
8) Recovery of components from catalysts.
9) Used oil re-refining or other reuses of previously used oil.
10) Land treatment resulting in benefit to agriculture or ecology.

8. Universal Wastes/Recyclables

The Contractor shall be responsible for the collection and off-site management of the following NIST generated wastes, which are to be managed under the EPA's Universal Waste Management Rule. Note that facilities recycling universal wastes are subject to the same regulations as any other hazardous waste recycler--Subtitle C of RCRA, i.e., 40 CFR 273 or comparable state regulations (6 CCR 1007-3, Part 273):

9. Universal wastes including:

a. Aerosol cans;
b. Batteries, including Lead-acid, Lithium, Nickel-Cadmium, Mercury, and Silver;
c. Electronics (limited types and quantities). Note: Most electronics are managed as excess property and are outside the scope of this contract;
d. Mercury-containing devices including mercury thermometers, mercury switches, barometers, manometers, thermostats, mercury light bulbs;
e. Pesticides, except those listed on the D-, P- or U-lists;
f. Light bulbs, including mercury lamps and HID lamps.

The Contractor shall be responsible for the collection and off-site management of the following NIST generated wastes which, unless either technically infeasible or price prohibitive, are to be recycled (in accordance with 40 CFR 266):

a. Batteries
b. Specification used oils
c. Used Oil Filters
d. Used Drums--both "empty" and "non-empty" and which may contain RCRA Subpart C material, substance, or waste chemical(s)
e. Liquid Mercury

10. Disposal Facility Audits

The Contractor shall conduct environmental and technical audits of disposal technologies and facilities used for the completion of this contract to ensure that all NIST's waste is ultimately disposed of in strict compliance with all federal, state and local requirements.

The Contractor shall provide, based on Contractor's knowledge and auditing of TSDRF(s), a report outlining waste the contractor will ship to the TSDRFs and any history of noncompliance with state or federal regulations or enforcement actions. The report shall include:

a. The name and address of the TSDRF;
b. The EPA Identification Number of the TSDRF;
c. Wastes to be shipped to the TSDRF and disposal method for each waste.
d. Waste profiles are acceptable to satisfy a, b and c if the TSDRF is identified; and
e. Identification of any noncompliance or enforcement action against the TSDRF in the past 5 years.

11. Transportation

On designated shipment dates, the Contractor shall transport NIST's chemical wastes, as described herein, directly to designated EPA approved/ permitted treatment, storage, disposal or recycling facilities (TSDRFs which have successfully met or exceeded the Contractor's environmental compliance audit(s) for TSDRFs). All vehicles used shall be in strict compliance with each state motor vehicle code or equivalent regulations of each state that the vehicles enter. Transport vehicle drivers shall have appropriate licenses and comply with relevant, applicable, and appropriate local, state, and federal statutes and regulations pertaining to the safe transport of NIST's acutely hazardous, hazardous, regulated and "non-regulated" materials, substances, and waste chemicals outlined within this SOW.

The Contractor shall assume responsibility for the remediation of any leak or spill of NIST generated waste that may result during the transportation and ultimate disposal of NIST's waste immediately upon discovery. The Contractor shall retain responsibility until the TSDRF takes possession of the waste.

As an EPA-designated, large-quantity generator, NIST's hazardous waste shall be transported off the Gaithersburg Site, by the Contractor, in compliance with the 90-day on-site accumulation time constraint requirements of 40 CFR 262.34. NIST will notify the Contractor at least 5 business days prior to the need for a hazardous waste shipment; NIST typically requires the shipment of hazardous waste from the Gaithersburg Site approximately every 60 -75 days. The DoC Boulder Labs is a small quantity generator subject to the requirements of 6 CCR 1007-3, 262.16. Wastes must be accumulated onsite for no more than 180 days. An exception exists if no TSDRF within 200 miles of Boulder will accept the waste for disposal. Under that condition, waste may be accumulated for up to 270 days. NIST WWV/WWVB is a very small quantity generator subject to the requirements of 6 CCR 1007-3, 262.14. Waste may be accumulated indefinitely. As a best management practice, an annual waste pickup at NIST WWV/WWVB is included in this SOW.

12. Disposal

The Contractor shall ensure timely and proper disposal of NIST's waste in accordance with local, state, or federal statutes, regulations, permits, and codes. This includes the requirement that any subcontractor(s) adhere to the terms and conditions outlined within this SOW and

relevant, applicable, and appropriate local, state and federal statutes, codes, regulations, and permits.

NIST shall receive completed manifests from the TSDF within 45 days from the shipment date of any hazardous waste from the Gaithersburg, WWV/WWVB or DoC Boulder Labs facilities.

13. Incidents or Accidents

The Contractor shall notify the NIST COR or ACOR immediately of any event, incident, accident or noncompliance concerning any material, substance, or waste chemicals from NIST, which are disposed of under this contract. The Contractor shall immediately notify NIST of any event which may impact the satisfactory completion of work conducted under this contract or which may unfavorably impact NIST. The Contractor shall not release any information to the public. The NIST's Public and Business Affairs Division shall answer any public questions relating to the performance of this contract.

14. Waste Pick Up Services

The Contractor shall collect waste chemicals from any of NIST's facilities on the Gaithersburg, MD campus once per week and transport the waste to Building 312. Waste shall be collected from SAAs and generation points at the DoC Boulder Labs facility twice per week. No weekly pickups are needed at the NIST WWV/WWVB facility.

The collection of chemical waste shall be carried out by two individuals meeting the minimum qualifications of a Hazardous Waste Chemist. One person is sufficient for most waste pickups at the DoC Boulder Labs, but two people may be needed for some pickups. The individuals shall be knowledgeable of the procedures and precautions necessary for moving, handling, packaging, and shipping of waste chemicals. In order to assure that requests for waste pick-ups are responded to in a prompt and safe manner and that the personnel and property of NIST and the safety of the public's health and the environment are protected during all contract operations, it is essential that Contractor's personnel recognize, prevent, and mitigate potential hazards encountered while working in laboratory environments and waste processing areas.

No Contractor employee may engage in potentially hazardous activities alone, at any NIST facility. On certain occasions, additional staff may be needed to accomplish the waste pick-up within a reasonable amount of time. The Contractor shall assign a primary team of a minimum of two Hazardous Waste Chemists for waste removal at NIST facilities. A back up team shall be available. It is the COR's discretion on how many chemists will be on site performing chemical waste pickups. The current practice is a primary chemist who processes hazardous waste in Building 312 and a team consisting of the second chemist and a technician who pick up the chemicals and bring them back to Building 312. One person may perform these tasks under most circumstances at the DoC Boulder Labs. The primary chemist and backup chemist must be on-site during all waste pickups.

The Contractor shall develop a formalized waste pickup schedule that includes a pickup of wastes at NIST Gaithersburg no less than once per week or twice per week at the DoC Boulder Labs. Any necessary changes shall be made in coordination with the COR (ACOR in Boulder), but shall not impact performance of waste management activities in accordance with regulatory compliance.

Chemical Waste shall be picked up from NIST Gaithersburg facilities once per week and twice per week at the DoC Boulder Labs. NIST will require pickups of waste from individual laboratory rooms. NIST will furnish the Contractor with a list of rooms or locations where waste is to be removed. This list will include the room number, the person's name, and a brief description of the waste.

Once the waste has been transported to Bldg. 312 (Building 23/43 in Boulder), the Contractor shall:

- Perform a waste determination. The characterization of most NIST wastes is determined based on the owner's knowledge of the material and information provided on the container label. Determine the RCRA waste codes that applies to the waste. Colorado regulations require that the determination be made at or before the time the waste was generated. A list of determinations is kept in Building 43.
- Pack the waste in containers for shipment on the day of the waste pick-up. Label the shipping containers appropriately and indicate the date that the accumulation begins. In Boulder, waste may be stored in cabinets and packed for shipment closer to the date of shipment.
- Prepare an inventory of all waste stored in Building 312 (Building 43 in Boulder) and update on each day waste is brought into the building.
- In Gaithersburg the next consecutive day after the pickups are performed may be used to perform all final DOT packaging and cleanup from the prior day's pickups. This day may also be used to prepare for hazardous waste shipments and general housekeeping.

Under no circumstances may the Contractor store hazardous waste at Building 312 for any longer than the 90-day accumulation period. In Boulder, waste may be accumulated in Building 43 for up to 180 days or 270 days if no facility within 200 miles of Boulder will accept the waste. If the DoC Boulder is operating as an episodic LQG, waste must be shipped before it has been accumulated for 90 days. Note: The DoC Boulder Labs rarely operates as an episodic LQG. NIST will formally notify the Contractor of any exceptions to this rule. If the Contractor believes certain waste to be an imminent hazard, including as soon as they have a reason to believe that a hazardous material exposure, release, spill, or other hazardous condition or risk such as shock sensitivity, has occurred or is present, then the Contractor must notify the COR immediately, and steps will be taken by both the COR and the Contractor to alleviate the hazard.

The Contractor shall immediately notify the COR if a situation arises during the routine pickup of waste that warrants emergency service. Emergency service requests require immediate response and shall take priority over all other contract activities. An example of emergency service is a release or spill of collected waste requiring clean up by the Contractor.

If the Contractor experiences difficulty in accessing any area where waste is located, the Contractor shall notify the COR or ACOR and request assistance as soon as possible.

The Contractor shall report what waste was and was not picked up during the site visit to the COR or ACOR, on the day of the pickups.

Certain areas within NIST facilities are restricted and entry by contract personnel into such areas is prohibited unless certain rules or policies are followed. The COR will inform the contract

personnel at the start of the contract which areas are prohibited from routine entry and under what circumstances such areas may be accessed. It shall be the Contractor's responsibility to ensure all Contractor personnel are informed once the guidelines are established. If the Contractor is not certain about the status of a particular area, the Contractor shall consult the COR before entering. In Boulder, access to specific rooms are determined by the "owner" of the space and managed by the division. It should be assumed that spaces require escort into the space unless specifically authorized. Access to the buildings (33 and 34) owned by the General Services Administration and leased to the National Oceanic and Atmospheric Administration is by escort only. Pickups may be scheduled at Building 33 loading docks if NOAA personnel agree.

The Contractor shall ensure that the waste is properly packaged for transport before moving the chemicals within NIST/DoC facilities.

The generator is responsible for properly identifying and labeling wastes prior to removal by the Contractor. The majority of wastes picked up from NIST/DoC laboratories consist of spent laboratory chemicals and surplus chemicals. The generator will provide proper chemical names of all constituents and their approximate concentration on the hazardous waste label. Wastes commonly generated in the Boulder MicroFab Facility (cleanroom) are labeled with trade names but identified in the waste determinations located in Building 43.

As the Contractor picks up waste from NIST/DoC laboratories (satellite accumulation areas), the Contractor shall review the labels and waste pick-up forms for the waste container, and the condition of the waste. The Contractor shall at this point make the determination if sufficient information has been furnished to properly prepare the waste for shipment, if the waste is safe to move, and if the waste will meet transportation and disposal requirements. Then the contractor shall transport the waste. The Contractor shall not remove waste from a lab if the material does not meet any of these criteria.

If the Contractor employee finds waste at a satellite accumulation area that is not properly labeled or cannot be safely handled, transported and disposed, he/she shall leave the waste at the satellite accumulation area. The waste shall be tagged with a tag identifying the reason the waste cannot be collected. The COR or ACOR will provide the tags. All questionable waste issues must be brought to the attention of the COR immediately.

On the day of waste pick-ups, the Contractor must transport the waste safely to Bldg. 312 (Building 43 in Boulder), unload all waste from the Contractor's truck, characterize the waste, assign a waste designation, package the waste for shipment, label the shipping containers and segregate all containers into appropriate rooms before leaving for the day. Any containers marked for return to the SAA shall be returned unless return isn't feasible for safety reasons.

The Contractor shall return the completed hazardous waste pickup request forms to the COR before leaving the site.

15. Emergency Services (Gaithersburg, Boulder and WWV/WWVB Sites)

Non-routine and emergency services may be required for emergency response activities, or to accommodate unusual workloads. The Contracting Officer or Contracting Officer's Representative may request the emergency services. The ACOR shall inform the CO or COR of any needed cleanup services in Boulder or at NIST WWV/WWVB. Emergency response to a spill or release

shall take top priority. The Contractor must be available to respond to emergency spill situations or emergency waste removal requests at the NIST Gaithersburg Site within four hours (4) of notice, meeting the following requirements:

a. A crew of four with current 40-hour OSHA HAZWOPER training andequipped with a minimum of Level B personal protective equipment
b. The contractor shall maintain access to a fleet of specialized vehicles (e.g., Turbo-vac style vacuum truck capable of hauling hazardous waste; and, backhoes/excavators, dump trucks, tractor trailers, roll offs and other vehicles capable of hauling hazardous waste) capable of meeting NIST's emergency services requirements, including prompt access to emergency equipment sufficient to ensure compliance with the required four (4) hour emergency response time.
c. Spill supplies, such as booms, pigs, pads, mats, adsorbents, drums, dikes, vacuums, etc.
d. Decontamination equipment for contaminated property and personnel.
e. Biological decontamination of property (i.e. office space, laboratories, hallways, auditoriums, etc.)
f. Note: At the DoC Boulder Labs, the contractor shall respond to incidental spills, as defined under 29 CFR 1910.120(A)(3), within 8 hours or by 8 AM of the next business day if the spill occurs outside of normal work hours. A minimum of 2 contractor personnel shall respond with level C PPE and a lift gate truck. NIST provides spill pads, socks and drums adequate to contain an incidental spill. Emergency responses [29 CFR 1910.120(a)(3)] to the DoC Boulder Labs are outside the scope of this contract. In the event an emergency response, per 29 CFR 1910, is required, Boulder Fire-Rescue shall be notified. Once control of the site of the spill has been released by Boulder Fire-Rescue, emergency cleanup shall proceed on a modification or emergency contract when authorized by the contracting officer.

16. Specialty Services

The Contractor shall provide **specialty services**, upon issue of this requirement by the NIST-Contracting Officer, including:

a. Vacuum truck services for the clean out of oil water separators, manholes, metal cutting tools, and other locations (hazardous and non-hazardous materials).
b. Lab clean outs including
    - Transport of chemicals from lab to lab
    - Collection and disposal of waste chemicals
    - Decontamination of lab equipment and rooms
c. Biological disinfection of equipment and rooms

VII. REGULATORY QUESTIONS:

Specific regulatory questions regarding NIST wastes shall be coordinated through the NIST COR.

VIII. GOVERNMENT RESPONSIBILITIES

With the exception of wastes designated for removal, all property, data and information provided

by the Government in the performance of this task remains the property of the Government and shall be surrendered to the government upon completion or termination of this contract. Some information related to hazardous waste content and disposal facilities is publicly available through EPA (See https://www.epa.gov/e-manifest for more information).

Likewise, all deliverables remain the property of the Government.

NIST will have the following responsibilities with respect to performance of the work described herein:

- NIST will coordinate the Contactor's access to the Gaithersburg Campus and facilities;
- NIST will review the work performed by the Contractor;
- NIST will sign waste disposal manifests properly prepared by the Contractor; and
- NIST will provide the following Government-furnished property, or facilities for the Contractor's use at NIST in conducting the required work:

  Building 312 Materials Processing Facility:
  - Forklift, also known as Powered Industrial Trucks (PIT)

    In order to operate a forklift per OSHA requirements/standards:
    - The forklift operator must be OSHA certified.
    - The forklift, itself, must be OSHA certified (current on its required inspection/certifications).
    - The employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by successful completion of the training and evaluation specified in the OSHA standard. Prior to permitting an employee to operate a powered industrial truck (except for training purposes), the employer shall ensure that each operator has successfully completed the required training (or previously received appropriate training).

  - 6 Various Drum grabbers/lifts
  - 10,000lb digital floor scale
  - 100lb digital scale
  - Crown Pallet jack
  - 2 drum hand carts
  - 2 office phones
  - 2 P&D solutions drum storage cabinets
  - 1 chemical fume hood
  - 2 Rubbermaid service carts for chemical pickups
  - 8 55-gallon drum bulking stations

  Government-Furnished Equipment (DoC Boulder Labs):
  - 1 drum hand truck
  - Assorted bung wrenches
  - Spill control materials
  - Polyethylene pails (1, 2.5 and 5-gallon)

- 12 chemical storage cabinets
- 1 drum bulking station
- 2 secondary containment pallets for drums, capacity is 2 drums per pallet
- 2 ramps for secondary containment
- 1 office phone
- 1 desk
- 1 chemical fume hood
- 1 Rubbermaid service cart for chemical pickups
- 1 pickup truck (Chevrolet Silverado, tag number G42-0061V)
- Waste labels

IX. DELIVERABLE AND DELIVERABLE DUE DATES

The Contractor shall submit the following deliverables:

a. **Health and Safety Plans.** Prepare a Health and Safety Plan for NIST Gaithersburg and the DoC Boulder Labs (plus WWV/WWVB) for submittal to NIST within 30 days after award of this requirement.

b. **Emergency Response Plan.** Prepare an Emergency Response Plan for NIST Gaithersburg and the DoC Boulder Labs (plus WWV/WWVB) for submittal to NIST within 30 days after award of this requirement.

c. **Security Plan.** Prepare a Security Plan for NIST Gaithersburg and the DoC Boulder Labs for submittal to NIST with 15 days after award of this requirement.

d. Own and operate an EPA Part A or Part B Licensed Treatment, Storage or Disposal Facility or Facilities (TSDF) Plan. Prepare a plan that details how the contractor must have access to a TSDF for the Gaithersburg, MD and Boulder CO waste.

e. Proof of insurance a minimum of $1,000,000.00

f. **Annual Waste Disposal Report and Biennial Hazardous Waste Report.** By January 31 of each contract year the Contractor shall prepare an Annual Waste Disposal Report. During the biennial hazardous waste reporting years, the contractor shall prepare the EPA biennial report and provide to NIST by January 31 in each reporting year. NIST will provide access to the EPA RCRAInfo Site to allow the vender to access NIST, Information for use in managing manifests and submitting the Biennial report for final approval by the COR. This report shall provide an inventory of all wastes disposed in the year up to December 31 of the same year. Each EPA Treatment Storage and Disposal facility used shall be identified and, for each facility, the Contractor shall provide the following information:

1) Waste Descriptions for all wastes disposed;
2) EPA Waste Codes for all wastes disposed;
3) Quantity generated (lbs.) in the calendar year;
4) Off-Site Management Code for all wastes; and
5) Total Quantity Shipped (lbs.) in the calendar year.
6) TSDF

g. **Invoices and Disposal Documentation.** Invoices shall be submitted in accordance to the NIST local invoicing clause. NIST will be transitioning to the IPP system in the Fall of 2026. Invoices may be sent to invoice@nist.gov to start the contract but change over shortly after the contract is awarded. The contractor shall email the COR/ACOR the completed Waste Manifests, and Written Acceptance of Waste by the Disposal Facility. Written Acceptance of Waste by the Disposal Facility (in the form of the *Designated Facility to Generator* copy of the manifest) must be provided with each invoice. Invoices that are submitted without appropriate Written Acceptance by the Disposal Facility will not be paid. Invoices shall provide a breakdown of labor, labor rates, waste containers disposed and unit rates for disposal.

h. **Hazardous waste management software**. The contractor will manage all NIST's waste within a hazardous waste management software system. Any reports that can be generated by this system shall be provided to the COR/ACOR upon delivery schedules above. The contractor must share the capabilities of their waste management system with NIST and provide digital copies via excel and or PDF format of all NIST data. The software system is intended to be the contractor's own in house system that is available to all their customers, not a NIST stand alone system.

Standards for Acceptance of Deliverables: The COR/ACOR will provide comments on each deliverable within 14 calendars days from receipt of a given deliverable. The contractor shall make any needed changes to the deliverables within 14 calendar days from receipt of electronic or written comments from the COR.

X. PERIOD OF PERFORMANCE AND PLACE OF PERFORMANCE

The period of performance is a twelve-month base period from the date of award and four twelve-month optional periods.

Period of Performance	Dates
Base Year	09/01/2026 – 08/31/2027
Option Year One (1)	09/01/2027 – 08/31/2028
Option Year Two (2)	09/01/2028 – 08/31/2029
Option Year Three (3)	09/01/2029 – 08/31/2030
Option Year Four (4)	09/01/2030 – 08/31/2031