

**Environmental Protection Agency
Office of Research and Development
National Exposure Research Laboratory
Ecosystems Research Division, Athens GA
(RFQ-RT-09-00172)**

1. Project Description:

This research is designed to provide improved understanding of processes that determine microbial fate and transport from terrestrial environments into freshwater and coastal aquatic environments. The objective of this research is to determine bacterial exposure of humans in aquatic environments to fecal indicators and pathogens from non point sources, including, but not limited to surface runoff from agricultural practices evaluate the fate and transport. The Ecosystems Research Division (ERD) of the National Exposure Research Laboratory (NERL), located in Athens, GA, works to understand sources, fate and transport of microorganisms in aquatic environments.

2. Description of Student Services:

The student contractor will primarily be responsible for using genetic molecular techniques to quantify fecal indicator bacteria and waterborne pathogens from various aquatic resources including streams, lakes, and coastal environments. The student will extract DNA from environmental matrices such as soils, water, sediments, and enrichment cultures using commercially available kits and run PCR and quantitative PCR analyses to identify and quantify microorganisms. The student contractor will apply cloning and sequencing techniques to determine the variability of pathogenic waterborne bacteria such as *Campylobacter* and *Salmonella* and will be responsible for running and maintaining capillary sequencing and qPCR instruments. The student will also assist with runoff and storm event sample collection during field experiments and will be responsible for logging and processing samples received from the field. The student contractor may be asked to participate in conferences or seminars in support of the statement of work. All necessary instructions and training will be provided by Dr. Marirosa Molina, who will also serve as the student's mentor. Where appropriate, the student contractor will maintain careful and accurate records in designated laboratory notebooks. These notebooks, and all other data produced under this order will be the property of the Environmental Protection Agency.

3. Required Expertise, Skills, Education and/or Experience:

Qualified candidates will have completed all requirements for a M.S. degree in environmental health science, biological science, biochemistry, microbiology, molecular biology, ecology, environmental toxicology, or related disciplines. The candidate is required to have qPCR and sequencing experience as well as knowledge of molecular biology techniques (DNA extraction, PCR) and general microbiological techniques. The student will need to know basic laboratory safety requirements and will be expected to complete additional safety training. Best qualified candidates will have experience working with bacterial pathogens *Campylobacter* and/or *Salmonella*. The candidate is also required to have a valid driver's license to drive to/from sampling locations. Excellent oral and written English communication skills and good interpersonal skills are required. Experience with common computer operation and software usage (e.g., Microsoft Office Professional Suite, including Excel, Word and PowerPoint.) is required.

4. Required Background Investigation and Suitability Determination

Student contractors awarded a contract will have to undergo a background investigation, a check of FBI fingerprint files, and a suitability determination by the Environmental Protection Agency. Using the HPSD-12 "Contract People Template" found at <http://epa.gov/oam/>, student contractor will electronically submit information to Pam Gunter at gunter.pam@epa.gov within ten (10) days of contract award. Refer to Homeland Security Presidential Directive 12 (HPSD-12) for more information. If a background check reveals information to indicate the student contractor represents a risk to the interests of EPA and the national security, the contract may be terminated.

5. Description of Working Conditions:

The duty location is the Ecosystems Research Division, NERL, 960 College Station Road, Athens, GA 30605. The student contractor will work in a laboratory and will be required to comply with all safety regulations regarding the wearing of safety apparel; observation of safety requirements, and completion of ERD's laboratory safety training. The student also may occasionally participate in field trips to local agricultural sites, streams, coastal and lake sites for sample collection and in situ biogeochemical measurements. The student will be provided with a computer workstation and office space. The student contractor will be governed by the USEPA quality system, as described in the approved quality management plan for the organization where the student contractor is working. Approved quality management plans are in full compliance with the USEPA's quality system requirements as expressed in these two documents:

Policy and Program Requirements for the Mandatory Agency-wide Quality System, EPA Order 5360.1 A2, May 2000

EPA Quality Manual for Environmental Programs, EPA Order 5360 A1, May 2000.

Work performed by the student contractor in a laboratory setting must be in compliance with the above referenced quality management plan. The Mentor is responsible for ensuring this compliance.

6. Duration and Compensation:

The initial contract will be for one year with an option for an additional 12 months. The contract is for one full time (40 hours/week) student (not to exceed 1928 hours during the base period and 1609 hours during the optional period). The rate of compensation for this contract is \$27.76/hr and the student contractor will pay the cost of self-employment taxes for social security and Medicare from the compensation.

7. Taxes:

The student contractor is responsible for paying all Federal, State or local income taxes required as a result of income received under this order.

**Attachment to Work Statement
Agency Personal Verification Procedures
for Contractor Personnel
October 2006**

Background: Homeland Security Presidential Directive 12 (HSPD-12), signed on August 27, 2004, requires a Government-wide, common identification standard for all Federal and contractor employees requiring physical access to Federally controlled facilities and/or logical access to Federally controlled information systems. The goals of HSPD-12 are to enhance safety and security, increase Government efficiency, reduce identity fraud, and protect personal privacy.

HSPD-12 requires that the common identification be: (a) issued based on sound criteria for verifying an individual employee's identity; (b) strongly resistant to identity fraud, tampering, counterfeiting, and terrorist exploitation; (c) rapidly authenticated electronically; and (d) issued by providers whose reliability has been established by an official accreditation process.

HSPD-12 and its common identification standard require personal identity verification (PIV), background investigations, and suitability determinations for all affected contractor and subcontractor personnel. In accordance with FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel, contractors and subcontractors must comply with EPA's master plan for implementing HSPD-12.

a) Contractor Requirements for Personal Identity Verification of Contractor Personnel
(including subcontractors)

Contractor Employees Requiring Access to EPA facilities or EPA Information Systems for at Least 24 Hours a Week for at Least 6 Months: All individual contractor employees whose work under the contract requires on-site access to an EPA controlled facility or logical access to an EPA information system for at least 24 hours a week for at least 6 months a year, will be required to undergo a background investigation in order to receive an EPA Personnel Access and Security System (EPASS) badge.

To begin the PIV process, the contractor should submit to the Contracting Officer Representative (COR) within ten (10) days of contract award or contract modification with this Attachment to Work Statement "Agency Personal Verification Procedures for Contractor Personnel," the following information in electronic format via secure means using the HSPD-12 Contractor Template found at <http://epa.gov.oam/>. The template was developed to assist in the transmission of the required contractor employee information in a uniform format. The template also contains drop down menus when entering data in various data cells. Specifically, the 8 data elements, Employee Type, Program Office, Work City and State, Birth State, Birth Country, Citizenship, Previous Investigation and Investigative Agency, contain drop down menus.

- Contract number;
- Contract expiration date;
- Name, address, and phone number of the Contractor Program Manager point of contact

- Name, date of birth, place of birth (city, state, country), and Social Security Number for all contractor employees identified above. (NOTE: This information must be protected at all times, including during transmission, according to the requirements of the Privacy Act of 1974; see <http://www.epa.gov/privacy/>);
- Employee Type, Position, Email address, Program Office, Work City and State, An indication of which contractor employees are foreign nationals;
- Name of each contractor employee claiming to have a previous, favorably adjudicated Federal background investigation on record, and the name of the Federal Agency that required the investigation, and the completion date.

The contract-level COR will upload this information to the Office of Administrative Services Information System (OASIS) personnel security database.

After submission of the preliminary information, the contractor will be notified by the contract-level COR or PSB when to begin providing all information on Standard Form (SF) 85P, Questionnaire for Public Trust Positions, and submit the form electronically to PSB via the Office of Personnel Management's (OPM's) Electronic Questionnaires for Investigations Processing (e-QIP) system. Instructions for using e-QIP, filling out, and submitting the SF 85P on-line, can be found at <http://www.opm.gov/e-qip/reference.asp>. As part of the investigative and EPASS badging processes, contractor employees must be fingerprinted, photographed and provide two forms of identification, at a time and location specified by the COR. These fingerprints will be sent to the Federal Bureau of Investigation (FBI) for processing.

Contractor employees with a favorably adjudicated Federal background investigation at the National Agency Check and Inquiries (NACI) level or above, completed within the past 5 years and verified by EPA, do not require an additional investigation unless one is requested by the Contracting Officer (CO) or contract-level Contracting Officer Representative (COR). These employees must still be fingerprinted at a time and location specified by the COR.

In order to prevent any interruption of contractor services pending the completion of the OPM background investigation, the Office of Administrative Services (OAS) Security Management Division (SMD) has procedures in place to issue temporary or provisional badges.

When reporting in person, as directed by the contract-level COR, contractor employees must provide two forms of original identity source documents from the lists on Form I-9, OMB No.1615-0047, Employment Eligibility Verification (available at <http://www.uscis.gov/graphics/formsfee/forms/files/i-9.pdf>). At least one document shall be a valid State or Federal Government-issued picture identification.

Contractor Employees Requiring EPA Access for Less than 24 Hours a Week for 6 Months: These contractor employees may be subject to the above requirements, and may have limited and controlled access to facilities and information systems.

Foreign National Contractor Employees: To be eligible to work on-site at an EPA controlled facility or to access EPA information systems, a foreign national contractor employee must have been admitted to the U.S. on an Immigrant Visa or a Non-Immigrant Work Authorization Visa.

Foreign nationals requiring access to an EPA controlled facility or EPA information system for at least 24 hours a week for at least 6 months a year must meet the above requirements for an EPASS badge, and in addition:

- In the “Continuation Space” on the SF 85P, provide the visa number, issuance location, and issuance date for the visa used for entry to the U.S;
- When presenting two identification source documents, as described above, provide at least one from List A on Form 1-9.

When determining a foreign national contractor employee’s eligibility for an EPASS badge, EPA will consider the type of visa presented (immigrant vs. non-immigrant) and the reciprocity agreement between the U.S. and the individual’s country of origin. These considerations are in addition to the “red flag” issues listed below.

Screening of the SF 85P: Information contained on the SF 85P may demonstrate that a contractor employee is not suitable to be given access to EPA facilities or information systems. PSB will screen information entered on the SF 85P prior to OPM initiating the background investigation. For individuals with admitted, derogatory information, issuance of an EPASS badge may be delayed pending further EPA review. Contractors are responsible for providing qualified personnel in accordance with requirements stated elsewhere in this contract. Contractors will only be notified by the COR if any contractor employee is found unsuitable to perform as a result of a background investigation, and must be immediately replaced by the contractor. The following are possible "red flags":

- Employment - Having been fired from a previous job, or having left under unfavorable circumstances within the past 7 years (Question 12 on the SF 85P);
- Selective Service - Failure to register with the Selective Service System; this applies to male applicants born after December 31, 1959 (Question 17 on the SF 85P);
- Police Records - Within the past 7 years, any arrest, charge, or conviction that has been upheld for violent or dangerous behavior or a pattern of arrests that demonstrates disregard for the law (Question 20 on the SF 85P);
- Illegal Drugs - Illegal use within the previous year, or drug manufacture or other involvement for profit within the past 7 years (Question 21 on the SF 85P).

b) Returning Badges

The contractor is responsible for ensuring that all badges are returned to the COR at the conclusion of the contract or when contractor on-site services are no longer required, or when an individual contractor employee leaves.

c) Subcontracts

These requirements must be incorporated into all subcontracts wherein employees’ work under the subcontract requires physical access to an EPA controlled facility or logical access to an EPA information system for 6 months or longer.

d) Appeals

Contractors have the right to appeal, in writing to the COR, a determination to deny or revoke a badge. If the COR believes an appeal is justified, he/she will forward it to:

U.S. Environmental Protection Agency
Personnel Security Branch (Mail Code 3206M)

1200 Pennsylvania Avenue, NW
Washington, DC 20460

PSB's decision on behalf of the Agency will be final and not subject to further appeal.

e) Definitions

- "EPA Information System" means an information system [44 U.S.C. 3502(8)] used or operated by EPA, or a contractor of EPA or other organization on behalf of the Agency.
- "EPA Controlled Facilities" means:
 - EPA or Federally-owned buildings or leased space, whether for single or multi-tenant occupancy, and its grounds and approaches, all or any portion of which are under the jurisdiction, custody or control of the Agency;
 - EPA or Federally controlled commercial space shared with non-government tenants. For example, if a department or agency leased the 10th floor of a commercial building, the Directive applies to the 10th floor only;
 - Government-owned contractor-operated facilities, including laboratories;
 - The term does not apply to educational institutions that conduct activities on behalf of departments or the agency or at which Federal Employees are hosted unless specifically designated as such by the sponsoring department or agency.

- "Foreign National" means an individual who is not a United States citizen.