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INFORMAL REPORT

HEALTH & SAFETY PLAN FOR THE COLLECTION OF SEDIMENT/SLUDGE SAMPLES AT PBF FACILITY

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EG&G Idaho

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Idaho National Engineering Laboratory
EG&G Idaho, Inc.
Idaho Falls, Idaho 83415

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EG&G Idaho, Inc.

HEALTH AND SAFETY PLAN FOR THE COLLECTION OF SEDIMENT/SLUDGE SAMPLES

July 1989

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HEALTH AND SAFETY PLAN FOR THE COLLECTION OF SEDIMENT/SLUDGE SAMPLES AT PBF FACILITY

1. INTRODUCTION

This plan presents the health and safety procedures and practices to be used during the collection of sediment/sludge samples from the Power Burst Facility (PBF) Reactor Area Evaporation Pond (PBF-733) and corrosive waste sump tank (PBF-731). These samples will be collected for the analysis specified in the sampling plan. All personnel will follow this plan during the collection of samples. Any variances will be cleared through the EG&G Idaho Environmental Restoration project manager. Safety Engineering unit will be informed of any variances to the approved plan.

The prime responsibility for conducting operations safely and to prevent the inadvertent release of pollutants to the environment will rest with the field team leader during the sampling of the pond and waste sump. The field team leader has the authority to direct employees of EG&G Idaho to cease or change operations any time he/she believes that an unsafe condition exists which shall be documented in his/hers field logbook. Each employee of EG&G Idaho will strive to identify and mitigate any health, environmental, or safety hazard. All parties will cooperate toward working as safely as possible and will comply with all applicable requirements of EG&G, the Department of Energy (DOE), the Environmental Protection Agency (EPA), and the Occupational Safety and Health Administration (OSHA).

Hazards associated with this task will consist of the potential physical hazards typical of entering and exiting the work site and sampling and analysis activities. These physical hazards will be controlled by safe work practices and the use of personal protective equipment as outlined in the EG&G safety manual. A safety Engineer, an industrial hygienist, and a Health Physicist (HP) will monitor the area. Chemical hazards, i.e. chromium, will be controlled by the use of personal protective equipment, good personal hygiene, and through monitoring.

These actions will be documented on a Safe Work Permit, (SWP) which will be approved by the safety engineering unit. Detailed descriptions of the personal protective equipment for both chemical and physical hazards are presented in later sections of this plan.

The following personnel/functions are available in support of this effort:

EG&G Safety:	
Industrial Hygiene	6-4369
Safety Engineering (CF-612)	6-1208
PRP Health Physicist	6-8239, 8230
Warning Communications Center:	6-1515
Medical and Health Contacts:	
Dr. J.Constantino, EG&G	6-2577
CFA Dispensary	6-2356
Ambulance	6-2211
EG&G Environmental Programs:	
R. H. Meservy, Mgr.	6-0513
Poison Control Center:	1-800-632-8000

2. POLICY STATEMENT

It is the policy of EG&G Idaho, Inc. to be in compliance with applicable federal regulations to protect the health of its employees, the employees of its subcontractors, the surrounding community, and official visitors from any adverse effect that might result from activities at a hazardous waste site. The health and safety precautions in this plan will allow the investigative activities at the PBF pond and waste sump to be accomplished safely without placing an excessive burden of equipment and procedures on the personnel performing the work, thus allowing the project to be performed efficiently and expeditiously.

Activities conducted in accordance with this policy will be in compliance with OSHA regulations governing hazardous waste operations. All EG&G employees who conduct, supervise, and/or manage hazardous waste operations are responsible for carrying out activities in compliance with the provisions of this policy and the recommendations of the industrial hygienist.

3. FIELD ACTIVITIES

A copy of the sampling and analysis plan will be provided for each team member for review prior to sampling.

The project objective is to assess the level of metal contamination in the sediment contained in the PBF Reactor Area Evaporation Pond (PBF-733) and the Corrosive Waste Disposal Sump Brine Tank (PBF-731) at the Idaho National Engineering Laboratory. Analytical results will be used in addition to historical data to characterize the pond and sump sediments for proper waste disposal.

Samples will be collected within the sump and boundaries of the evaporation pond (above the Hypalon liner). It is the intent is to determine if the sediments are contaminated, but not to characterize the extent of contamination, if present.

All excess sludge from the pond will be returned to the pond. All equipment decontamination solutions will be collected, packed in absorbent material within lined drums, and disposed of by EG&G Idaho Environmental Programs in accordance with current Idaho National Engineering Laboratory (INEL) hazardous waste disposal practices. Samples shipped to the analytical laboratory that are deemed to contain hazardous materials will be disposed of in accordance with the laboratory's current hazardous waste disposal practices.

4. FIELD TEAM PERSONNEL AND RESPONSIBILITIES

The field team will consist of:

- Field team leader
- Safety representative(s) (Safety Engineering)
- Decontamination technician/packaging documentation
- Field sampler
- Field Quality Assurance (QA) officer
- Support personnel as necessary to successfully complete the required tasks; these personnel can include equipment operators, industrial hygienists, photographers, laboratory QA officer, health physicist, etc.

The overall guidance and philosophy for the field operations are (a) safety first and (b) each member of the team will be cognizant of technical and operational requirements and will point out any potential for misdirection or risk.

4.1 Field Team Leader

The field team leader has the primary responsibility for ensuring the fulfillment of the technical and operational requirements of the respective sampling plans. The field team leader will have the following responsibilities:

- Locate support facilities in an area removed from potentially contaminated areas
- Integrate contact with the facility Safety and Operations personnel and ensure that personnel are familiar with the location of the CFA medical facility.
- Instruct team personnel at a pre-task briefing on the technical, operational, quality, enviromental, and safety requirements
- Observe all site activities and ensure that the team meets all enviromental, safety, quality, and operational requirements outlined in this document and in the respective sampling plans
- Ensure that all safety equipment is available and in good working order before any potentially hazardous operation is initiated
- Control access to and egress from the working site
- Ensure compliance with field documentation, sampling method, and chain-of-custody requirements
- Determine, in conjunction with the Safety Engineering unit representative, the level of personal protection necessary for the task being performed
- Enforce the buddy system.
- Ensure that personnel have been certified to work inside the exclusion area.

- Determine locations of and routes to CFA medical facilities and arranging for emergency transportation to these.

- Notifying emergency response units of the nature of the team's operations and posting their telephone numbers.

- Arranging with INEL Medical for the examination of team members who exhibit symptoms of heat stress or exposure.

4.2 Safety

The Safety Engineer and the industrial hygienist has the primary responsibility for independent safety reviews on site and reports to the safety engineering organization. The Safety Engineer assists the field team leader in assuring safe procedures are followed, but also acts independent of the field team leader. The Industrial hygienist will normally stay on the clean side of the exclusion area and will monitor the work party and sampling activities, although it may be necessary to enter the exclusion area to obtain OVA/HNU readings. The Safety Engineer and at least one other member of the team will remain in the appropriate level of protective equipment to be able to respond to emergencies. The Safety Engineer or industrial hygienist will assess the work site on a routine basis for the following:

- Recommending update of equipment or procedures based upon information gathered during site inspections.

- Recommending upgrade levels of protection in response to site observations.

- Entering the exclusion area in emergencies, after notifying emergency services and ensuring that one member of the team is available in the clean area to assist emergency services.

- Ensure adequacy of equipment to be used.

- Assisting in the provision of emergency medical care and first aid.

4.3 Decontamination Technician

The decontamination technician will be responsible for decontaminating all instrumentation and equipment used in collecting hazardous waste samples. Decontamination will be in accordance with procedures specified in the respective sampling plans. This technician will also assist individual team members in removing their personal protection gear after they have exited the exclusion area. The decontamination technician will (a) prepare the necessary decontamination solutions, (b) ensure that contamination is not spread to the clean area, and (c) manage the mechanics of proper disposal of discarded contaminated clothing, equipment, and spent decontamination solutions.

4.4 Quality

The field QA officer is responsible for monitoring the activities of the sampling team, verifying that applicable sampling procedures have been followed, and certifying that all procedural and documentation requirements have been met. The field QA officer will normally remain outside of the exclusion area in a position that will allow observation of the general activities of the field team.

The laboratory QA officer is responsible for preparing all quality control samples and documenting these in the laboratory logbook.

4.5 Field Team Members

All members of the team will be responsible for being familiar with the sampling and health and safety plans. Further, each team member is responsible for providing and maintaining the equipment necessary to successfully complete the assigned tasks.

Individual members of the field team have the responsibility to:

1. Read and understand this plan

2. Perform their work safely

3. Report any unsafe condition to the field team leader

4. Be aware and alert for signs and symptoms of exposure to contaminants and/or heat stress.

4.6 Medical

The INEL Occupational Medical Program provides medical advice and service to all INEL employees and employers. The INEL Occupational medical Program resides in the Health and Medical program organization of EG&G Idaho and their activities are required and authorized by DOE Order 5480.8. The Occupational Medical Program helps to ensure compliance with OSHA and other regulations that require medical surveillance of workers exposed above TLVs 30+ days/yr, wearing respiratory protection 30+ days/yr, injured/overexposed from emergency incidents, HAZMAT team members. Medical services are provided at one decontamination facility, two facilities staffed by physicians and nurses, and four dispensaries staffed by nurses. The major medical facility at the Central Facilities Area is open during all shifts, every day of the year.

The Occupational Medical Program has responsibilities in the following areas:

1. Treatment of illness and injuries in or arising out of the source of work.

2. Assistance in the documentation and investigation of work-related illness or injury.

3. Providing medical opinions about the ability of employees to perform the assigned work.

4. Advice on medical treatment and transportation.

5. The maintenance and operation of a radiological and chemical decontamination facility at Central Facilities Area.

6. Providing medical surveillance programs for workers who are properly identified by a qualified industrial hygienist as exposed, or at risk to become exposed, over action limits to specific toxic substances.

A baseline physical exam must be on file with the INEL OMP for all employees identified on IH as Hazardous materials handlers, (see resource manual ch. 8 page 8-2).

The following information is also to be provided by IH prior to beginning the work:

1. Substances to which the employee is likely to be exposed, expected frequency and duration on exposure.

2. Time, place, and extent of previous exposure to these substances above TLV and PPE.

3. Type of PPE to be used by the employee, when and what training on its use has been given.

4. The estimated number of days per month the worker is to use PPE, especially respirators, in the coming year.

5. The estimated length of time the employee is expected to continue as a Haz. Mat worker.

5. Hazard Evaluation of PBF Pond and Sump

Review of documents and records indicate that the primary chemical hazard involved in the sampling of the pond and sump is exposure to chromium. Records indicate that approximately 200 kg of chromium were disposed of through the PBF sump. Of the 200 kg sent to the sump approximately 90 kg were sent on to the PBF evaporation pond with the remainder disposed of via the PBF injection well. Chemical hazards to the field team exist when samples from the investigation sites contact human tissue. Every effort will be made to avoid direct contact with potentially contaminated materials at the site. Personnel should constantly look for potential safety hazards and should immediately inform their supervisors of any new hazards so that mitigative action can be taken.

5.1 Routes of Exposure

The field activities team may be exposed to contaminated samples through inhalation, ingestion, and/or skin and eye contact.

- Respiratory system contact with contaminated materials can occur due to lack of, or improper use of respiratory equipment.

-- Gastro-intestinal system contact with samples can occur when workers do not pay attention to personal hygiene rules designed to reduce the chance of ingesting site contaminants; e.g. washing hands thoroughly before smoking, eating, or drinking after leaving the site.

-- Skin contact with solid or liquid contaminated samples can occur when a worker does not wear proper protective clothing during sampling activities or when sample preparation and packing is carelessly done.

-- Eye contact with solid or liquid contaminated samples can occur when a worker does not wear safety glasses during sampling activities or when dirty hands are used to contact an eye.

The primary indicator of exposure to the chemical hazards associated with the sampling of the PBF pond and sump is irritation of eyes, skin or respiratory tract.

5.2 Physical Hazards

The field team can be exposed to a number of physical hazards during this project. Physical hazards that may be encountered are:

-- Fire and explosion

-- Oxygen deficiency

-- Biologic hazards

-- Industrial safety hazards

-- Heat stress

-- Decontamination activities (water)

-- Lightning

General considerations are discussed below, followed by specific comments in the following section.

5.2.1 Fire and Explosion

There are many potential causes of explosions and fires at hazardous waste sites. Explosions and fires may arise spontaneously however, they more commonly result from site activities such as moving drums, accidentally mixing incompatible chemicals, introducing an ignition source into an explosive or flammable environment, or refueling equipment. Intense heat, open flame, smoke inhalation, flying object, and the release of toxic chemicals into the environment can result. Fuel and decontamination fluids may generate fumes that can be ignited. This is not anticipated to be a problem with this sampling project.

5.2.2 Oxygen Deficiency

Oxygen deficiency can result from the displacement of oxygen by another gas or the consumption of oxygen by a chemical reaction. Confined spaces such as the PBF sump are particularly vulnerable to oxygen deficiency and should always be monitored prior to entry.

5.2.3 Biologic Hazards

Waste from hospitals and research facilities, disposed food, and waste animal carcasses and feces may contain disease-causing organisms that could infect site personnel and can be dispersed in the environment by wind and water.

Normal tetanus bacteria live in soil. All field team members should have had a tetanus immunization within the past ten years.

The field team will be made aware that site activities may disturb the local wildlife population. Snakes, insects, and other animals can and will bite if disturbed. Avoidance is the best solution but field personnel will be briefed regarding the potential for encountering wildlife and prompt first aid measures should they be necessary.

5.2.4 Industrial Safety Hazards

Hazardous waste sites may contain numerous safety hazards such as:

-- Existing hazardous objects and terrain

-- High work areas

-- Lifting heavy objects

-- Moving equipment and falling objects

Existing Objects or Terrain: Existing objects and terrain can present

-- Holes and ditches;

-- Precariously positioned objects that may fall;

-- Sharp objects such as nails, metal shards, and broken glass;

-- Slippery surfaces;

-- Steep grades;

-- Uneven terrain and unstable surfaces.

Lifting Heavy Objects: All field team members should be trained in the proper method of lifting heavy equipment and cautioned against lifting objects that are too heavy for one person. Assists will be utilized whenever possible to minimize lifting dangers.

Moving equipment and falling objects: The field team may be subject to lacerations and contusions from contact with moving machinery and possible falling objects. This will be minimized by wearing protective clothing, hard hats, steel-toed boots and using mechanical assists whenever possible.

Personal Protective Equipment: Personnel must be aware that protective equipment can, at times restrict visibility and movement. This increases the risk of falling over objects, striking objects, or being struck by them. Personal protective equipment can also elevate the risk of heat stress, and impair a worker's agility, hearing, and vision which can result in an increased risk of an accident.

5.2.5 Heat Stress

During the project, workers may be required to wear protective clothing which insulates the body and which could result in adverse health effects if not correctly managed. High ambient temperatures can result in various symptoms including heat fatigue and physical discomfort stemming from an increase in body temperature. The team leader must be alert for the signs and symptoms of heat stress and act accordingly to preserve the alert and safe work practices necessary for this operation. This work is scheduled for the summer months such that the ambient temperature and radiant heat may be sufficiently high to create a hazard.

Field team members will be observed for the following signs and symptoms of heat stress:

-- fatigue

-- dizziness

-- profuse sweating

-- skin color change

-- vision problems

-- confusion

Any team member who exhibits any of these symptoms will be removed immediately from field work and taken to a CFA Medical Facility without delay.

The work schedule may be changed to take advantage of cooler ambient temperatures which occur in the evening and early morning periods of the day.

6. TASK SAFETY ANALYSIS

Tasks conducted during the sampling could involve risk to field personnel. All samples will be monitored for radioactivity as soon as they are collected, and any sample with a reading higher than EG&G standards as defined in the EG&G Radiological control manual will be treated as radioactive material. Samples will be monitored for organic vapors with an HNU organic vapor analyzer. Hazards that may be encountered during this sampling effort are:

1. Industrial Hazards: cuts, contusions, caused by being struck by or striking objects

2. Chemical Hazards: field exposure to hazardous chemicals and decontamination solvents

3. Thermal Hazards: exposure to ambient temperature extremes while wearing protective clothing and exposure to high temperature water from the steam cleaner while decontaminating equipment

4. Radioactive Hazards: health physics personnel will insure that team members are properly protected from radioactive hazards.

5. Physical Hazards: tripping or falling when entering and exiting the pond area, lifting, bumping, etc.

6. Natural hazards: Rain, lighting, etc.

7. Oxygen deficiency: Entry into the tank shall be under supervision of the safety engineer or industrial hygienist. Personal protection level shall be determined by the safety engineer or industrial hygienist prior to entry.

Containers must be properly packaged and shipped in accordance with hazardous materials shipping and handling guidelines.

7. SAFE WORK METHODS AND PERSONNEL PROTECTION

This section presents procedures on how to safely perform the tasks of this program. Level D personal Protective Equipment per NIOSH/OSHA/USCG/EPA occupational Safety and Health guidance manual for hazardous waste site activities shall be used and entry into the corrosive waste sump shall be accomplished in accordance with a confined space entry. the Industrial Hygienist will examine the sump and define required PPE prior to sampling. which.

The team leader, in coordination with the industrial hygienist or Safety Engineer, may increase or decrease the level of personal protection and document such action in the field logbook. Respiratory protection and chemical resistant clothing will be available at the sampling location if conditions warrant.

Required and available personal protective equipment for each task will be documented on the safe work permit and will vary with the job being performed. The initial personnel entry will conduct a preliminary site survey near the sampling locations and will monitor radiation and monitor organic vapors using an OVA/HNU. Based on these results, the field team leader and the the appropriate safety discipline personal will determine whether or not the designated levels of personal protective equipment are sufficient to conduct the sampling and also whether respirators will be required.

8. CONTAMINATION CONTROL PROCEDURES

To minimize the transfer of potentially hazardous substances from the collection site and to protect the environment, contamination control procedures are required. Contaminants must be removed from personnel and equipment before exiting the work zones. These contaminants will be properly contained and disposed of in accordance with EG&G policies, (See Ref. 5).

8.1 Work Zones

The field team shall prevent uncontrolled waste material from being removed from the sampling sites and from affecting the site itself. The team will prevent migration of site contaminants by using work zones and personnel/equipment decontamination procedures. The following zones will be established during sampling:

1. Exclusion Zone: The exclusion zone will be established around the sampling area. It will be roped off with safety rope (black and yellow) and the berm around the Disposal Pond will serve as a physical barrier. No personnel will be permitted in the exclusion zone unless they are in full compliance with this safety plan and with the approval of the Field Team leader. The exclusion zone will encompass the area where potentially hazardous airborne contaminants and physical hazards to workers will be contained. The size and shape of the exclusion zone will be modified to accommodate site conditions, but should encompass an area large enough to permit sampling, prevent the migration of contaminants, and permit decontamination of personnel and equipment. The Field team leader and the safety representative(s) will determine the exclusion zone boundaries.

2. Support Zone: The support zone will be defined for each task. This zone should be located upwind from the sampling site, and must be clean and free of potentially contaminated equipment and materials.

8.2 Decontamination Procedures

Decontamination of equipment used for sample collection is necessary to prevent cross-contamination of samples and the spread of contamination outside of the area.

Contamination should not be present on personnel if the proper protection methods specified in this plan are used. However, all field team members will follow these guidelines to ensure that contamination does not remain on equipment, sample containers, or in contact with their bodies:

1. Remove all equipment, sample containers, and other materials that have had the potential of contamination from the exclusion zone to the decontamination area within the support zone. Obtain decontamination solutions and decontaminate the equipment by using a brush under a water rinse. Spent decontamination solutions will be contained and handled in the same manner as discarded sample material.

2. Wash hands, face, neck, and forearms before consuming any food or drink, smoking, or using the restroom.

3. The HP will determine if personnel and equipment are to be surveyed before leaving the exclusion zone. If personnel are radioactively contaminated, they must remain in the exclusion zone and HP assistance used for proper decontamination of the individual. An individual should not attempt to decontaminate himself if radioactive contamination is suspected.

4. Life saving care will be initiated immediately without considering decontamination. Outer garments can be removed if they do not cause delay or if they interfere with treatment or aggravate medical problems.

9. PERSONNEL TRAINING

Sampling personnel will be required to have all training required by the Occupational Safety & Health Administration's final rule as promulgated in 29 CFR 1910. Field team personnel will be required to review this plan and will be asked questions concerning the safety aspects of sampling and field operations. Each section of this plan is designed to provide information that will ensure the safe completion of each task. It will be the responsibility of the field team leader to ensure that all members of the team have access to this plan, read the safety procedures and understand how to safely accomplish each task. It is the individual employee's responsibility to notify the field team leader of any portion of the plan or operation that (s)he does not understand. Before initiating work, the field team will meet and discuss the contents of this plan and ensure that all members are informed of safe work practices.

Daily, prior to starting work at the sample collection site, a "confined space" entry will be made by the safety engineer or the industrial hygienist using the "buddy system" to monitor the conditions of the tank. Also, the field team leader will conduct a pre-briefing to ensure that team members are familiar with their individual responsibilities and are informed of potential health and safety hazards. The following specific topics will be discussed:

- Known or potential routes of contact with toxic and/or corrosive materials (skin contact/absorption, eye contact, inhalation, ingestion)

- Known or potential hazardous chemicals that could be encountered

- Types, proper use, limitations, and maintenance of applicable protective equipment (eye protection, gloves, safety boots, Tyvek coveralls and respirators)

- Respiratory protection (respirator types and their limitations, care and maintenance, practice fitting)

- Proper decontamination procedures and adherence to work-zone boundaries

- Proper sample/waste handling and disposal procedures

- Reporting of accidents and availability of medical assistance

- Emergency procedures, such as warning and evacuation

- Coordinate formal safety training, if appropriate, through Site Safety Training at CFA.

If all field team members cannot attend the training session, individual team members will be responsible for understanding this plan and informing the field team leader or the Safety engineer of any questions or potential issues. All team members will acknowledge their understanding by signing the form attached to the back of this plan.

10. EMERGENCY RESPONSE PLAN

Emergency procedures outlines below are designed to enable the field team to handle medical emergencies or other situations that may occur and need to be handled competently and quickly. The PBF facility is equipped with a first aid station. The procedures below are adapted from the "Elements of an Emergency Response Plan", 29 CFR 1910.120.

- Preplanning will consist of on-site medical supplies and the closest MEDICAL FACILITY PHONE NUMBER (6-2356) or where to find it.

- The IH, who will be trained in CPR/First Aid, will assist in providing emergency medical care and first aid, if needed. The field team leader will assist the IH, and the project manager will coordinate between the field and the PBF and CFA Medical Facilities.

- The field team leader will be responsible for determining if emergency exists and what action should be taken in the field.

- If an emergency arises that requires getting away from the hazard, pre-selected locations will be available, and the field team will be informed of where are before commencing the sampling tasks.

- Equipment will be kept in supervised areas and inventoried after each task is completed.

- The main evacuation route from the site will be determined based on available roads, wind direction and/or the reason for the evacuation. The field team leader will act as the area warden and ensure all personnel are accounted for, ensure all necessary safety precautions are taken, and document cause of evacuation.

- o if an emergency arises, it will be the field team leader's duty to notify those people affected and inform them of the correct procedures to follow.

- o The project manager will report all emergency situations and follow up with a written report.

- o The field team leader will be responsible for notifying the appropriate managers or personnel and the Warning Communications Center (526-1515) in case of emergency.

The following emergency equipment will be available at the sampling site during operations:

- o A two-way radio will be brought onto the sampling site in case a phone in not readily available during an emergency.

- o A first-aid kit will be kept in the support zone.

- o An ANSI approved portable eyewash station with sufficient clean, fresh potable water for copious flushing will be available at the site.

The INEL requires a pre employment physical examinations for all employees. If any team member displays symptoms that indicate exposure to hazardous materials, documented by Industrial Hygienist data, the team member will be taken to CFA Medical Facility for evaluation and treatment as indicated.

If a team member is injured, all operations will cease immediately and remain shut down until the field team leader, with concurrence of the safety engineer, has determined that the injured member has been properly attended, and the source of injury is understood, and that continuation of operations will not place any team members at risk.

11. HEALTH AND SAFETY CERTIFICATION FORM

I certify that I have been given a copy of the Health and Safety Plan for the Collection of Sediment/Sludge Samples at the PBF Evaporation Pond (PBF-733) and corrosive waste sump tank (PBF-731) and that I agree to comply with all of the procedures described therein. I further certify that I understand the potential health and safety hazards of the program (as outlined in the Health and Safety Plan) and have been trained in the use of the personal protection equipment selected for this project.

Team Leader:	(Print)	(Signature)	(Date)
Field QA Officer:	(Print)	(Signature)	(Date)
Team Member:	(Print)	(Signature)	(Date)
Team Member:	(Print)	(Signature)	(Date)
Team Member:	(Print)	(Signature)	(Date)
Team Member:	(Print)	(Signature)	(Date)
Team Member:	(Print)	(Signature)	(Date)

12. REFERENCES

1. K. N. Koslow, Health and Safety Plan for Collection of Sediment/Sludge Samples at TSF Disposal Pond, May 1988

2. M. SiHig, Handbook of Toxic and Hazardous Chemicals.

3. NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Oct. 1985.

4. EG&G Safety Manual, Jan 1988

5. EG&G Radiological Control Manual, Jan 1988