

**SITE HEALTH AND SAFETY PLAN
NAVAL AIR STATION ALAMEDA
ALAMEDA, CA
SITE 15, PHASE II WORK**

**CONTRACT NO. N62474-93-D-2151
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Submitted to:

Department of the Navy
Engineering Field Activity West
Naval Facilities Engineering Command
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Submitted by:

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**SITE HEALTH AND SAFETY PLAN
FOR
NAVAL AIR STATION ALAMEDA
SITE 15, PHASE II WORK**

Revision 0

October 25, 1994

Approved by:

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IT Program Manager

Date:

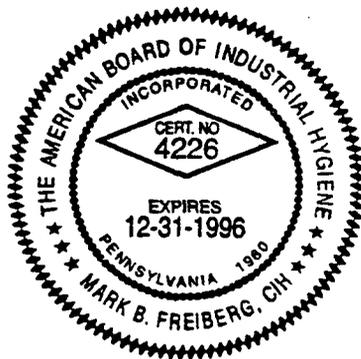
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Approved by:

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Date:

10/28/94



Disclaimer

This Project Health and Safety Plan is for use by IT Corp. personnel, subcontractors and visitors who will be working on the NAS Alameda Phase II Project in Alameda, California. This Project Health and Safety Plan was developed with the goal of providing the best available and most current industrial health, safety and regulatory information. The recommendations and guidance provided herein are based on currently accepted industrial hygiene principles and safety practices. All such advice and instruction is intended to reflect the present level of health and safety efforts consistent with prevailing professional standards. This representation is in lieu of all warranties either expressed or implied, and no responsibility is assumed for the misapplication of any materials, advice or instruction provided herein.

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ALAMEDA POINT
SSIC NO. 5090.3

SITE HEALTH AND SAFETY PLAN
SITE 15, PHASE II WORK

REVISION 1

DATED 01 MARCH 1995

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- C Material Safety Data Sheets and Occupational Health Guidelines
- D Jobsite Postings and Permits
- E Health and Safety Plan Addenda

List of Acronyms

| | |
|----------|---|
| ABIH | American Board of Industrial Hygiene |
| AIDS | Acquired Immune Deficiency Syndrome |
| AIHA | American Industrial Hygiene Association |
| ANSI | American National Standards Institute |
| bpm | Beats Per Minute |
| BCSP | Board of Certified Safety Professionals |
| °C | Degrees Celsius |
| Cal/EPA | California Environmental Protection Agency |
| Cal/OSHA | California Department of Industrial Relations, Division of Occupational Safety and Health |
| CET | Certified Environmental Trainer |
| CFR | Code of Federal Regulations |
| CIH | Certified Industrial Hygienist |
| CPR | Cardiopulmonary Resuscitation |
| CSP | Certified Safety Professional |
| CRZ | Contamination Reduction Zone |
| dBA | Decibels, A-weighted |
| DOT | Department of Transportation |
| DTSC | Department of Toxic Substances Control |
| EMR | Environmental Medical Resources, Inc. |
| EPA | Environmental Protection Agency |
| EZ | Exclusion Zone |
| °F | Degrees Fahrenheit |
| FADL | Field Activity Daily Log |
| FID | Flame Ionization Detector |
| FM | Factory Mutual |
| FR | Federal Register |
| HAZWOPER | Hazardous Waste Operations and Emergency Response |
| HBV | Hepatitis B Virus |
| HEPA | High Efficiency Particulate |
| HIV | Human Immunodeficiency Virus |
| HS | Health and Safety |
| IDLH | Immediately Dangerous to Life and Health |
| IIPP | Injury and Illness Prevention Plan |
| IT | IT Corporation |
| LEL | Lower Explosive Limit |
| MSDS | Material Safety Data Sheet |
| NIOSH | National Institute of Occupational Safety and Health |
| NRR | Noise Reduction Rating |
| OSHA | Occupational Safety and Health Administration |

List of Acronyms (Continued)

| | |
|-------|-------------------------------------|
| OVA | Organic Vapor Analyzer |
| PEL | Permissible Exposure Limit |
| PHSP | Program Health and Safety Plan |
| PID | Photoionization Detector |
| SPM | Senior Project Engineer/Manager |
| PPE | Personal Protective Equipment |
| ppm | Parts per Million by Weight |
| PS | Project Superintendent |
| SEIR | Supervisor's Employee Injury Report |
| SHSO | Site Health and Safety Officer |
| SIR | Safety Inspection Report |
| SSHP | Site Safety and Health Plan |
| TSM | Tailgate Safety Meeting |
| UL | Underwriter's Laboratory |
| USA | Underground Services Alert |
| USACE | U.S. Army Corps of Engineers |
| UST | Underground Storage Tank |
| VOC | Volatile Organic Compound |

1.0 Introduction

1.1 Objective

The objective of this Site Health and Safety Plan (SSHP) is to ensure that safe working conditions exist during the NAS Alameda Phase II Project. The safety procedures outlined have been established based on preliminary analysis of potential hazards within the Site. This HASP describes the health and safety requirements and procedures to be used while conducting field work and includes:

- Responsibilities of persons on site;
- Training Program;
- Medical Surveillance Program;
- Hazard Analysis;
- Hazard Control Program;
- Personal Control Program;
- Decontamination Procedures;
- Industrial Hygiene Monitoring Program; and
- Certain Specific Work Procedures.

This document, in combination with all SSHP Addenda and IT's Corporate Health and Safety Policy manual, also serves as the company's Injury and Illness Prevention Plan (IIPP) and Code of Safe Work Practices.

1.2 Site and Facility Description

NAS Alameda is an active air station on the island of Alameda, California. Soil washing for the removal of PCBs and lead will be conducted at Site 15 within the air station. Site 15 is a small fenced area at the northwest end of the base. The site is relatively open and near a roadway.

1.3 Policy Statement

It is the policy of IT Corporation (IT) to provide a safe and healthful work environment for all its employees and subcontractors. IT considers no phase of operation or administration to be of greater importance than injury or illness prevention. Safety takes precedence over expediency or shortcuts, and every reasonable step to reduce the possibility of injury, illness, or accident will be taken.

This Site Safety and Health Plan (SSHP) prescribes the procedures that must be followed during field work associated with the project. Operational changes which could affect the health or safety of personnel, the community, or the environment will not be made without the prior approval of the IT Senior Project Engineer/Manager, and the Program Certified Industrial Hygienist (CIH).

The provisions of this SSHP are mandatory for all IT personnel and subcontractors assigned to the project. IT requires all visitors to the work site to abide by the requirements of this SSHP. The Program CIH will provide written addenda to this SSHP when changes warrant. No changes to the plan will be implemented without prior approval of the Program CIH or his authorized representative.

1.4 References

This SSHP complies with Federal Occupational Safety and Health Administration (OSHA), California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA), United States Environmental Protection Agency (EPA), California Environmental Protection Agency (Cal/EPA), and California Department of Toxic Substances Control (DTSC), and U.S. Army Corps of Engineer (USACE) regulations. This SSHP follows the guidelines established in the following documents:

- Standard Operating Safety Guidelines (EPA, November 1984);
- Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities National Institute of Occupational Health and Safety (NIOSH 86-116);
- Title 29 of the Code of Federal Regulations (CFR), Parts 1910 and 1926 including Part 1910.120 (Hazardous Waste Operations and Emergency Response);

- Title 8 of the California Code of Regulations (CCR), (Cal/OSHA construction and General Industry Safety Orders);
- U.S. Army Corps of Engineers Safety and Health Requirements Manual (USACE 385-1-1, October 1992).

The contents of this SSHP are consistent with, or supplement the following IT Health and Safety Policies and Procedures:

- HS001 Safety Policy
- HS002 Safety Policy: International Operations
- HS010 Employee Safety and Health Work Rules
- HS011 Contractor Safety and Health Rules
- HS012 Chemical Hygiene Plan and Safety Manual
- HS013 Health and Safety Procedure Variances
- HS018 Safety Councils
- HS019 Injury and Illness Prevention Program
- HS020 Accident Prevention Program: Reporting, Investigation, and Review
- HS021 Accident Prevention Program: Management Safety Audits and Inspections
- HS022 Accident Prevention Program: Review of New Proposals, Projects, Operations and Construction
- HS040 Stop Work Authority
- HS041 Embryo-Fetus Protection Program
- HS050 Training Requirements
- HS051 Tailgate Safety Meetings
- HS052 Health and Safety Plans

- HS060 Hazard Communication Program
- HS080 Insurance Claims
- HS090 OSHA Regulatory Inspections
- HS091 Serious Injury and Fatality Reporting Requirements
- HS092 Occupational Injury and Illness Recordkeeping
- HS100 Medical Policies and Procedures
- HS101 Drug and Alcohol Testing
- HS102 Access to Employee Exposure and Medical Records
- HS103 Maintenance of Employee Exposure and Medical Records
- HS104 Employee Notification of Industrial Hygiene Monitoring Results
- HS105 Occupational Injuries/Illnesses Procedures
- HS106 First Aid Kits
- HS300 Confined Spaces, Industrial
- HS301 Confined Spaces, Marine
- HS302 Confined Spaces, Leaded Product
- HS303 Hydroblasting
- HS304 Compressed Gas
- HS305 Pressurized Systems
- HS306 Handling Known Compressed Gas Cylinders
- HS307 Excavation and Trenching
- HS308 Scaffolding
- HS309 Underground Storage Tank Removal

- HS310 Hazardous Waste Operations at Uncontrolled Waste Sites
- HS311 Emergency Response Operations
- HS312 Hazardous Waste Operations at TSD Facilities
- HS313 TSD Facilities - Minimum Staffing Requirements
- HS314 Hot Work in Hazardous Locations
- HS315 Control of Hazardous Energy Sources (Lockout/Tagout)
- HS400 Working in Hot Environments
- HS401 Cold Stress
- HS402 Hearing Conservation Program
- HS500 Handling PCBs
- HS501 Handling of PCBs in the Laboratory
- HS502 PCB Contaminant and Spill Prevention Requirements for Transport Vehicles
- HS503 Handling of Dioxin and Furan Contaminated Materials
- HS504 Handling of Dioxin in the Laboratory
- HS505 Handling of Inorganic Lead, Organic Lead Compounds and Organic Lead Soaps
- HS506 Handling of Inorganic Arsenic
- HS507 Handling of Dibromochloropropane (DBCP)
- HS508 Handling of Beryllium and Beryllium Contaminated Materials
- HS509 Handling, Removal and Disposal of Asbestos and Asbestos Contaminated Materials
- HS510 Asbestos Work in Schools
- HS511 Handling of Benzene and Benzene Contaminated Materials

- HS512 Handling of Blood or Other Potentially Infectious Materials
- HS513 Handling Radioactive Materials
- HS600 Personal Protective Equipment
- HS601 Respiratory Protective Program
- HS602 Eye Protection - Prescription Safety Glasses
- HS603 Maintenance of Survey Equipment
- HS604 Use and Maintenance of Portable Electrical Equipment
- HS605 Electron Capture Detectors
- HS606 Soil Density Gauges
- HS800 Motor Vehicle Operation: General Requirements
- HS810 Commercial Motor Vehicle Operation and Maintenance
- HS811 DOT 24-Hour Emergency Number
- HS820 Forklift Operation
- HS821 Breathing Air Cylinder Trailer
- HS822 Mobil Crane Inspection
- HS900 Emergency Response Program.

The requirements of these corporate policies apply to all work conducted on this project.

2.0 Responsibilities

2.1 All Personnel

Each person is responsible for his/her own health and safety, for completing tasks in a safe manner and for reporting any unsafe acts or conditions to his/her supervisor and the Project Superintendent (PS). All persons on-site are responsible for continuous adherence to health and safety procedures during the performance of any project work. In no case may work be performed in a manner which conflicts with the intent of, or the inherent safety precautions expressed in, this SSHP. After due warning, persons who violate procedure and work rules may be dismissed from the site, terminated, or have their contract revoked. Blatant disregard or repeated infractions of health and safety policies are grounds for disciplinary action up to, and including, dismissal, and/or removal from the work area.

All IT and subcontractor personnel are required to read and acknowledge their understanding of this SSHP. All project personnel are expected to abide by the requirements of this SSHP and cooperate with project management in ensuring a safe and healthful work site. Site personnel are required to immediately report any of the following to the PS:

- Accidents and injuries, no matter how minor;
- Unexpected or uncontrolled release of chemical substances;
- Any signs or symptoms of chemical exposure;
- Any unsafe or malfunctioning equipment; and
- Any changes in site conditions which may affect the health and safety of project personnel.

2.2 Senior Project Engineer/Manager

The Senior Project Engineer/Manager (SPM) has overall responsibility for the health and safety of all personnel on the project. His/her responsibility with regard to health and safety is to maintain company policy and resolve health and safety issues with the assistance and guidance of the Program CIH. The SPM will provide the Program CIH with the company name and representatives of those contractors being considered for hire, as well as those hired, to allow required preliminary information to be collected in a timely manner.

The SPM is responsible to:

- Notify the Program CIH when field operations begin so that field support can be scheduled;
- Ensure that the SSHP is read and signed by all field personnel on the project, including subcontractors. The SSHP must also be signed by the Program CIH and the SPM;
- Ensure that all provisions of the SSHP are followed. Contact the Program CIH for any variances or modifications desired;
- Demonstrate a personal commitment to safety on the project;
- Ensure that tailgate safety meetings are conducted daily, signed by all field workers and reviewed by the PS and the SPM. The SPM must have completed the Hazardous Waste Supervisor Course;
- Ensure that Field Activity Daily Log (FADL) forms are completed for each day of operations, signed and dated by the author, and that all persons listed have signed the SSHP and tailgate form;
- Have supervisors inspect the project at least weekly, with inspections and corrective actions documented on FADL forms. The SPM is to inspect the project for safety hazards periodically;
- Ensure correction of any reported or observed safety hazard;
- Ensure employees are trained on the hazards of any hazardous substances used. MSDSs must be on-hand for all hazardous materials (other than wastes) and containers must be properly labelled;
- Ensure that project safety equipment is inspected regularly (monthly for fire extinguishers);
- Report all near-miss, injury, illness and vehicle accident incidents to the Program CIH within 24 hours and ensure that a Supervisor's Employee Injury Report (SEIR) form is initiated;
- Notify the Program CIH when field work lasts more than six months so that the SSHP can be reviewed and updated as needed;
- Immediately notify the Program CIH upon receiving notice of any regulatory agency inspection; and

- Ensure that the project files receive copies of:
 - all internal and external HS correspondence
 - all air sampling records (including "none-detected")
 - all accident reports and Accident Review Board documentation
 - documentation of audits and corrective actions
 - air monitoring equipment calibration records
 - all FADLs.

The SPM will lead at least one site safety audit team per quarter while field activities are conducted and will ensure that all accidents, incidents and/or near-misses are investigated in a timely manner. The SPM will ensure that management performs an investigation of all incidents or accidents which had the potential to cause a lost-time or hospitalization incident or fatality within 24 hours of the incident.

The SPM for this job is Valerie Crooks.

2.3 Program Certified Industrial Hygienist (CIH)

The Program CIH is responsible for the preparation and modification (as necessary) of this SSHP. The Program CIH will approve changes and update the SSHP as warranted by altered site conditions and shall have the only authorization to effect such changes (except those changes outlined in the Emergency Response Plan). The Program CIH will advise the SPM on health and safety issues which may have an impact on project operations. In addition, the Program CIH is responsible to:

- **Oversee and review the work of the Site Health and Safety Officer (SHSO);**
- **Administer the general health and safety program;**
- **Provide technical assistance to the SPM and the PS;**
- **Investigate significant accidents, illnesses and near-misses. Recommend corrective actions as appropriate. Review all Accident/Incident Investigation Reports;**
- **Establish the required personal protective equipment for each work area;**
- **Assist the PS and SHSO in establishing decontamination area locations;**

- Evaluate and approve contractors regarding health and safety compliance both prior to accepting the contract and upon completion of the project, as appropriate; and
- Establish proper employee exposure monitoring and assess the appropriateness of protective measures.

The Program CIH is Mark Freiberg. Mr. Freiberg is certified by the American Board of Industrial Hygiene (ABIH) and by the Board of Certified Safety Professionals (BCSP).

2.4 Project Superintendent

The Project Superintendent (PS) reports to the SPM and is responsible for field enforcement of the SSHP. This includes communicating project health and safety requirements to all on-site project personnel (both IT and subcontractor personnel), consulting with the Program CIH regarding changes to the SSHP, and conducting periodic health and safety inspections with the SHSO. The PS is responsible for informing the Program CIH and the SPM of any changes to the workplan, prior to implementation, so that health and safety issues introduced by those changes may be properly addressed. The PS will be on-site during all project related activities or will delegate his responsibilities to qualified supervisory personnel [i.e., person(s) having 8-hours of hazardous waste operations supervisory training per 29 CFR 1910.120 (e) (4)], as appropriate.

Other responsibilities include:

- Reading and being familiar with the Project SSHP, as well as appropriate IT Policies and Procedures;
- Directing work so as to ensure personnel safety and protection of property and the environment;
- Providing all required safety supplies to work crews prior to each task;
- Demonstrating a personal commitment to safety on the project;
- Observing project personnel for signs of chemical or physical trauma;
- Conducting jobsite safety audits with the SHSO at least weekly;

- Immediately notifying the SPM and Program CIH upon receiving notice of any jobsite inspection by a regulatory agency;
- Correcting any hazards disclosed by project workers or the SHSO;
- Rendering appropriate disciplinary action to individuals who do not strictly adhere to the project SSHP;
- Immediately notifying the SPM and Program CIH of any illnesses, accidents, injuries, or near-misses related to the project, and submitting appropriate documentation to the Program CIH with 24 hours.
- Assist the Program CIH and/or SHSO in establishing appropriate site control zones.

The Project Superintendent is Jamie Hargrave.

2.5 Site Health and Safety Officer

The Site Health and Safety Officer (SHSO) will represent the Program CIH on-site during field activities. As such, he/she will be responsible for providing independent surveillance of the routine implementation of the project SSHP. The SHSO may not, however, authorize changes to or variances from the SSHP. Any modifications of the project SSHP must be approved by the Program CIH.

Other duties of the SHSO include:

- Immediately stopping work if Immediately Dangerous to Life or Health (IDLH) or other extremely hazardous conditions are encountered.
- Verifying that all personnel have the necessary training and medical clearance prior to entering the site;
- Identifying all site personnel with medical restrictions to the PS;
- Determining that monitoring equipment is properly calibrated and used, and that results are properly recorded and filed;
- Informing the Program CIH of significant changes in either the environment or work procedures which may require modification of the SSHP;
- Observing work party members for symptoms of on-site exposure or stress;

- Overseeing implementation of the SHSP, reporting any deviations from the Plan to the PS and the Program CIH;
- Immediately notifying the PS of any unsafe conditions observed, and providing technical guidance to the PS for the correction of the condition;
- Recording daily maximum and minimum temperatures;
- Conducting employee exposure monitoring for workplace contaminants, noise and/or heat stress as outlined in Section 8;
- Monitoring the use of required protective clothing and safe work practices;
- Recording on FADL forms the names of all personnel who enter the EZ or CRZ;
- Determining and posting routes to capable medical facilities and emergency telephone numbers (including poison control facilities), and arranging emergency transportation to medical facilities;
- Notifying local public emergency officers of the nature of the operations, and posting of their telephone numbers in an appropriate location;
- Conducting and documenting required project specific training;
- Conducting job site safety audits at least daily;
- Ensuring that all personnel have been given the proper medical clearance, have met appropriate training requirements, and have provided the appropriate documentation;
- Ensuring that training and medical records are maintained on-site for all IT and subcontractors personnel;
- Monitoring project personnel to ensure ongoing compliance with the SSHP;
- Assisting the PS in establishing appropriate Work Zones;
- Presenting tailgate safety meetings and maintaining attendance records;
- Monitoring that decontamination procedures are meeting established criteria;
- Acting as Project Hazard Communication Coordinator as required by 29 CFR 1910.1200 and T8 CCR 5194;

- Responding to employee's/contractor's health and safety concerns; and
- Periodically auditing subcontractor qualifications to ensure only properly qualified personnel are allowed in the work area.

2.6 Subcontractor Management and Personnel

Subcontractor management is responsible for the compliance of their personnel with this Project SSHP. Since subcontractors are hired for their specific expertise, they must assume primary responsibility for the health and safety of their personnel. The subcontractor's Field Supervisor or Crew Leader will also be responsible for performing a weekly safety inspection of their operations. A copy of this inspection must be submitted to the PS each week. The subcontractor's Field Supervisor must have successfully completed 8 hours of Supervisory training per 29 CFR 1910.120 (e)(4) and T8 CCR 5192 (e)(4) if the subcontractor personnel will be performing work within either the Exclusion Zone (EZ) or Contamination Zone (CRZ).

Subcontractors must also:

- Comply with all applicable Occupational Safety and Health Administration (OSHA) regulations as defined in Title 29 Code of Federal Regulations Parts 1910 and 1926 (29 CFR 1910 and 1926), as well as the United States Army Corps of Engineers "Safety and Health Requirements Manual" (EM 385-1-1).
- Perform all work in California in Compliance with applicable Cal/OSHA standards, found in Title 8 of the California Code of Regulations.
- Provide documentation for each on-site worker of successful completion of either 24 or 40 hours training (depending on the work to be conducted) in health and safety practices for hazardous waste operations per 29 CFR 1910.120 and T8 CCR 5192. This must be received prior to the employee arriving on-site.
- Provide documentation for each on-site worker of a doctor's approval for the worker to perform hazardous waste remediation work based on an annual medical exam and work history review prior to the worker arriving on site.
- Provide updated documentation as on-site individuals complete annual HAZWOPER refresher training and/or receive annual medical examinations. Such documentation must be provided prior to the expiration date of the previous year's training/physical examination.

- Provide their own personal protective equipment (including safety boots, safety glasses, hard hats, respirators, protective clothing and the like).
- Report all incidents/accidents/injuries/near-misses immediately to the PS. Provide input to IT's investigation of any mishap or near miss. Provide documentation to IT of the subcontractor's internal investigation of the mishap/near miss.
- Provide proof of additional (non-HAZWOPER) training upon request (e.g., documentation of forklift training).
- Provide awareness level training to affected IT workers regarding any material, equipment or operation which may pose a hazard to the IT employees.
- Provide a Material Safety Data Sheet (MSDS) to IT for all materials used on the project which are regulated by the Hazard Communication Standard (29 CFR 1910.1200) and T8 CCR 5194. MSDSs shall be approved by IT Corporation prior to the material being brought on site.
- Notify IT in writing prior to bringing any radioactive materials or devices (e.g., nuclear density gauges) onto the jobsite. Such notification must identify by name the subcontractor's Radiation Safety Officer and list the company's radioactive material license number.
- Provide own first aid kits and first aid trained individual.
- Submit personnel to "reasonable cause" drug and alcohol testing when directed to do so by the Senior Project Engineer/Manager (in accordance with IT Policy HS101). Results of such testing are to be provided to IT Corporation immediately upon receipt.
- Remove any worker from the project who tests positive for either drugs or alcohol.
- Have in place an active and effective Drugfree Workplace Program in compliance with the Federal Drugfree Workplace Act.
- Provide written notification to subcontractor's own employees of the results of any industrial hygiene monitoring conducted by IT on those employees.
- Immediately inform the IT Project Superintendent of the presence, or anticipated presence, of regulatory agency officials at the jobsite. Provide documentation to IT of any citations or notices of violation issued to the subcontractor for work

on, or associated with the project. Such documentation shall include a copy of the written citation and a summary of the subcontractor's corrective action plan.

2.7 On-Site Personnel and Visitors

No visitor will be allowed within the Work Zones without authorization from the SPM and the PS. Visitors requesting authorization to enter the Contamination Reduction Zones (CRZs) or Exclusion Zones (EZs) must meet the requirements established for Project Personnel, including appropriate medical exams and training. On-site Navy personnel will also be held to these requirements.

3.0 Project Hazard Analysis

3.1 Scope of Work

This project will be limited to excavation of a previously determined area of contaminated soils. The removal of the contaminants (PCBs and lead) by soil washing on site and the replacement of the cleaned soils into the excavation.

3.2 Hazard Analysis

The job safety analysis identifies potential safety, health, and environmental hazards and provides for the protection of personnel, the community, and the environment. Because of the complexity and constant change of remediation projects, supervisors must continually inspect the work site to identify hazards which may harm site personnel, the community, or the environment. The PS must be aware of these changing conditions and discuss them with the SPM and the Program CIH. The Project PS will keep supervisors for subcontractors informed of the changing conditions.

3.2.1 Materials Handling

Loading and unloading materials and setting up and dismantling equipment presents a variety of hazards. These include cuts, abrasions and lacerations from sharp objects; back injuries from poor lifting techniques; crushing injuries from falling or moving loads; pinch points; and being struck by moving equipment or loads. Cylinders are pressurized systems and present the additional hazard of rapid explosive motion if damage occurs.

3.2.2 Vehicle Traffic

The project worksite is located within an active military base with both industrial and personal vehicle traffic nearby. Work in such areas presents a risk of being stuck by a vehicle. Collisions between vehicles are also possible unless safe driving practices are used.

3.2.3 Chemical Hazards

Personnel working on the site may also be exposed to diesel and gasoline exhaust from the trucks and machinery in use during project activities. As the area is outside and therefore well ventilated, exhaust levels should not reach concentrations capable of causing any adverse

health effects. Symptoms of exposure to high levels of exhaust include nausea, headache, dizziness, coughing and irritation of the eyes and upper respiratory system.

Activities required during the project may result in some slight exposure of site workers and visitors to substances that have been determined by the State of California to cause cancer, birth defects or other reproductive harm. The State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) requires notification to all persons who may be exposed to such chemicals. These substances are described in Tables 1 and 2 of this SSHP.

The contaminants which may be present on site that have been determined by the State to cause cancer include:

- PCBs

In addition, the following contaminants on site have been determined by the State to cause reproductive harm:

- Lead

Lead is present in the soil in various forms as both inorganic and organic lead compounds. The routes of exposure include inhalation, injection, and skin or eye contact. Exposure may cause weakness, lassitude, anorexia weight loss malnutrition, abdominal pain colic, anemia, tremor, paralysis, encephalopathy, nephropathy, hypotension, gingival lead line, and reproductive harm. The target organs for lead exposure are the gastrointestinal tract, central nervous system, kidneys, blood, and gingival tissue.

PCBs are present in the soil in various concentrations. The routes of exposure include inhalation, absorption, ingestion and skin or eye contact. The inhalation hazard will be primarily due to PCB contaminated dust particles. Exposure may cause irritation to the eyes, chloracne, liver damage and is a carcinogen. The target organs for PCB exposure are the skin, eyes and liver.

3.2.4 Trenching and Excavation Hazards

Excavation of soil is generally accomplished using heavy earthmoving equipment. This introduces loud noise levels which may cause hearing loss. Such equipment also presents a

risk of being struck by the machinery. Earthmoving equipment can also tip over if mishandled.

If workers must enter the excavation, they risk being buried or otherwise injured by moving soil unless the excavation is properly shored or sloped. Contaminant vapors can also accumulate in deep excavations.

3.2.5 Maintenance/Troubleshooting

Equipment and machinery maintenance and troubleshooting work associated with the groundwater remediation plumbing can expose project workers to contaminated materials and other hazards. Troubleshooting electrical and mechanical equipment can expose workers to shock hazards, and crushing or pinch hazards.

3.2.6 Hand Tools

Use of hand tools may expose workers to cuts, lacerations or puncture wounds if inadequate hand protection is worn or tools are improperly stored. Damaged hand tools may also expose employees to injuries from shattered tools and flying debris.

3.2.7 Power Tools

Power tools present many potential hazards, including shock and electrocution, injuries from accidental activation and injuries from using damaged or malfunctioning equipment.

3.2.8 Confined Space Entry

It is not anticipated that any work conducted during this project will require entry into a confined space. A confined space is defined as an enclosure which is large enough for an employee to enter, but which has limited means of access and egress and is not designed for continuous employee occupancy.

A permit-required confined space is a confined space as defined above which also contains one or more health and/or safety hazards. This can include chemical, mechanical, electrical, or other hazards.

3.2.9 Noise

Some of the equipment used on the project generates loud noise. Exposure to sound levels above 85 dBA can cause temporary impairment of hearing. Prolonged and repeated exposure to sound levels above 85 dBA can cause permanent hearing damage. The risk and severity of hearing loss increases with the intensity and duration of the exposure. In addition to damaging hearing, noise can impair voice communication, thereby increasing the risk of incidents.

3.2.10 Heat and Cold Stress

3.2.10.1 Heat Stress

Wearing personal protective equipment (PPE) can put site personnel at considerable risk of heat stress and heat related illnesses if proper precautions are not implemented. Heat related illnesses range from transient heat fatigue to heat stroke and death. Heat related illnesses are caused by a number of interacting factors which include environmental conditions, clothing, work load, and characteristics of the individual worker.

Individuals vary in their susceptibility to heat stress. Factors that influence an individual's tolerance for heat include physical fitness, diet, alcohol/drug use, sleeping habits, acclimation, genetics, medical condition, age and weight.

The signs of heat stress disorders are given below.

Heat Cramps. Heat cramps are caused by heavy sweating and inadequate electrolyte replacement. Signs and symptoms include muscle spasms and pain in the hands, feet and abdomen.

Heat Exhaustion. Heat exhaustion occurs from increased stress on various body organs. Signs and symptoms include:

- Pale, cool, moist skin;
- Heavy sweating;
- Dizziness, nausea; and/or

- Fainting.

Heat Stroke. Heat stroke is the most serious form of heat stress and should always be treated as a medical emergency. The body's temperature regulation system fails, and the body temperature rapidly rises to critical levels. Immediate action must be taken to cool the body before serious injury or death occurs. Signs and symptoms of heat stroke include:

- Red, hot unusually dry skin;
- Lack of, or reduced perspiration;
- Nausea;
- Dizziness and confusion;
- Strong, rapid pulse and/or
- Coma.

Sunburn. Operations will require IT and subcontractor employees to work outside during daylight hours, typically seven to nine hours per day. Under these conditions, workers are at great risk for developing sunburn on unprotected skin.

Sunburn is a burn to the skin caused by overexposure to ultra-violet light (sunshine). The symptoms of exposure are not usually apparent until two to four hours after the exposure ceases. Depending upon the severity of the exposure the symptoms can range from reddening of the skin accompanied by mild discomfort, to painful deep burns and blisters. Although light-haired, fair-skinned, blue-eyed personnel are at the greatest risk of sunburn, all complexion types can develop sunburn if the exposure is long and intense enough.

Sunscreen products with sun protection factor ratings of 15 or higher will be available to project personnel. Areas of primary concern include; nose, cheeks, ears and the back of the neck. Sunscreen will be applied as necessary and reapplied after each break.

3.2.10.2 Cold Stress

Cold stress is not an anticipated concern. However, workers should be aware that most cold-related worker fatalities have resulted from failure to escape low environmental air

temperatures, or from immersion in low temperature water. The single most important aspect of life-threatening hypothermia is a fall in the deep core temperature of the body.

In the event that the weather becomes unusually cold (temperatures below 45°F) project workers should be protected from exposure to cold so that the deep core temperature does not fall below 36 degrees Celsius (°C). Lower body temperatures will very likely result in reduced mental alertness, reduction in rational decision making, or loss of consciousness with the threat of fatal consequences.

3.2.11 Fire

During dry weather, the potential for fire exists in any unpaved grassy perimeter regions of the site. Where VOC levels are high, both a fire and explosion hazard exist. Sparks from operating equipment, or even contact with hot catalytic converters can cause ignition.

3.2.12 Environmental Hazards

Poisonous or stinging insects, spiders and/or snakes may be a concern for project personnel during sampling and other site activities. Disease vectors, such as ticks, may also be present. Poison oak or other noxious flora may be present on or near the site, and can cause severe skin irritation on contact. Physical hazards are also posed by native vegetation in the area, including thistles and other thorny weeds.

3.2.13 Dust

Remediation and demolition activities can create airborne dust. Excessive generation of dust can limit visibility, cause irritation to workers and create airborne chemical contamination which spreads the overall extent of contamination and puts nearby unprotected personnel at risk of overexposure.

3.2.14 Slip, Trip and Fall Hazards

Poor housekeeping results in a workplace which is laden with slip, trip and fall hazards. Such accidents can cause serious injuries, including broken bones, contusions, and/or deep lacerations.

3.2.15 Asbestos Removal

The joint sealing tapes used to make the joints between the metal sections of Quonset Huts Buildings 283 and 301 were found to contain chrysotile asbestos fibers. While these fibers are contained in a mastic and are not in a friable condition, special handling is necessary to prevent the release of the fibers. The Quonset Huts will be dismantled by removing the nuts and bolts holding the section together to minimize fiber release. The sections will then be lowered to ground level. This dismantling will take place using techniques that keep the mastic wet. Representative air monitoring for asbestos fibers will be conducted during this work, and crews will be trained and protected in accordance with Title 8 CCR, Section 1529.

3.2.16 Soil Washing

During the soil washing procedures, various biosafe solvents and UV light will be used to remove lead and PCB contamination from the soil removed from Site 15.

Ultraviolet light is a hazard to humans as it can cause severe eye damage and skin burns with prolonged exposure. Never view the ultraviolet lamp with the naked eye. Make sure that the lamps are turned off and the power locked out whenever the control cabinet is open. Project personnel will be trained in the specific hazards and precautions of work around the ultraviolet source.

4.0 Hazard Control Program

4.1 Buddy System

Project staffing during hazardous waste operations shall meet the requirements and intent of the "buddy system," as outlined below.

- At least two persons are required to be at the work area when work is conducted in the exclusion zone which might result in worker contamination.
- The PS, or qualified designee, is permitted in the work area without a buddy when his/her role is limited to administrative duties or other tasks presenting no potential chemical exposure or other significant hazard. However, notification to the SPM is required prior to and after entry.

The buddy system is a method of organizing employees into work groups and is designed to provide those employees with assistance when needed. Each employee in a work group is designated to be observed by at least one other person. Assignment of designated partners should take place during the Tailgate Safety Meeting (TSM).

The responsibility of the buddy is to:

- Provide assistance if needed;
- Maintain line of sight contact or verbal contact with workers in the EZ;
- Observe for signs of chemical or physical trauma or heat/cold stress such as:
 - changes in complexion and skin discoloration,
 - changes in coordination or demeanor,
 - excessive saliva and pupillary response,
 - changes in speech pattern;
- Periodically verify the integrity of all protective clothing; and
- Notify the SHSO if emergency help is needed.

Entry to or exit from the EZ under the conditions described earlier without a designated partner is prohibited.

4.2 Vehicular Traffic

All IT employees who will be driving restricted-visibility vehicles (e.g., trucks, vans and pick-ups) at the project site shall have successfully completed IT's Safe Driver Training Course. Vehicle operators will check carefully for nearby traffic before proceeding at a cautious pace on facility roadways. Unless otherwise marked, speeds should be held to 15 mph or less while on site.

Care should be taken to ensure that trucks, equipment and materials are placed in a manner that keeps obstruction of local traffic to a minimum. During work activities, it may become necessary to move equipment in order to accommodate traffic and site activities.

Workers on foot should not wander into the active roadways. If work in active traffic areas is required, workers will wear bright orange safety vests, and the work zone will be marked with barricades, cones or tape to warn traffic.

Where traffic control is necessary, base representatives will be contacted to ensure minimal disruption of base activities. When the base cannot provide traffic control officers, project workers may do so using high visibility road vests, hand-held stop signs and traffic cones.

4.3 Chemical Hazards

During on-site activities, all personnel will wear appropriate protective clothing whenever the possibility for contact with contaminated soil or groundwater exists (see Section 5.0). If respiratory protection is required, only NIOSH approved respirators may be worn. Disposable respirators are not permitted.

Material Safety Data Sheets (MSDSs) will be provided on-site for each hazardous material (other than work) brought on-site. MSDSs are found in Appendix C.

4.4 Excavation Safety

The following rules will be enforced for all excavations within the work site:

- The location of any underground utilities will be identified prior to commencing excavation activities and workers will be informed of these locations.

- Prior to the initiation of excavation activities, underground utility lines shall be located and protected from damage or displacement.
- The PS will inspect the area for signs of weakness or structural defects at the start of each shift or when environmental or work conditions change.
- Personnel will be trained in the specific hazards associated with excavation and trenching prior to entering the work area.
- No one shall be permitted to enter the trench at any time.
- Crossing directly over the trench shall be permitted only where approved walkways with handrails are provided. All other traffic is to be directed around the trench, at a safe distance from the trench edges.
- The spoil shall be removed at least two feet away from the edges of the trench. At least four feet is strongly recommended wherever possible.
- Barricades or barriers will be placed around the excavation site to prevent unauthorized entry and to warn equipment operators.
- Heavy equipment not being used in the excavation and trenching operations shall be placed a sufficient distance from the trench so that their weight does not weaken the trench walls.
- Blades and buckets on the front ends of heavy equipment shall be lowered during transport and whenever the operator leaves the machine.
- Construction equipment shall be given the right-of-way during field activities.
- Heavy equipment shall have a reverse signal alarm that operates automatically with backward movement.
- Work is to be completed during those hours when the subcontractor is not operating heavy equipment or machinery.
- All heavy equipment shall be equipped with a fire extinguisher.
- The operator shall check the condition of equipment each day before operating. This check shall include brakes, clutches, steering mechanisms, hydraulic and electrical systems, and signs of abnormal wear.
- No worker shall use a piece of equipment unless they have been trained and are familiar with its operation.

- Personnel are not allowed to work off machine implements or to use them as ladders or scaffolds.
- Heavy equipment shall be operated from the operators seat only.
- Unauthorized riding on equipment or riding parts of equipment not intended for occupancy by either operator or passenger is prohibited.
- Barriers will be erected around the excavation site to prevent unauthorized personnel from entering the area.
- The trench will be completely filled in upon completion of the work.

4.5 Use of Hand Tools

The following safe work practices apply to the use of hand tools:

- Only use a tool for its designed use.
- Do not use damaged tools.
- Driving faces of hammers, chisels, drift pins, bars, and similar tools must be inspected to eliminate mushroomed heads, broken faces and other defects.
- Tools must be returned to their proper storage place.
- Sharp tools must not be carried in pockets.
- Wood handles must be sound and securely wedged or fastened to the tool. Tape must not be used to cover defects such as cracks.
- When hand tools are being used overhead, those working or standing below must be notified.
- Pipe wrenches must be inspected regularly. Replace the heel and jaw sections if found to be defective or worn out.
- Pipe wrenches must not be used to bend, raise or lift pipe.
- Always wear safety glasses to protect the eyes.

4.6 Use of Power Tools

When using power tools, the following precautions shall be followed:

- Eye protection (safety glasses or goggles) must be worn whenever operating power tools.
- Power tools must be grounded or of the double-insulated type.
- Power tools shall not be used in wet locations.
- All power tools must be protected by a Ground Fault Circuit Interrupter (GFCI).
- Splicing, cutting or "repairing" electrical wire by unauthorized personnel is prohibited.
- Plugs and cords must be protected from damage.
- Grounding plugs are never to be removed.
- Electrical tools are not to be used inside a confined space without prior approval by the SHSO or Program CIH.
- All electrical tools must be turned off before connecting or disconnecting the power supply.
- Extension cords must be visually inspected each time they are used. Cords must be disconnected from the power source before coiling for storage.
- Extension cords used with portable electric tools shall be of three-wire type and shall be rated for hard or extra-hard usage (Types S, ST, SO, STO, SJ, SJO, SJT, or SJTO).

4.7 Lockout/Tagout Procedures

Whenever employees or subcontractors are working on equipment or in areas where the activation of the equipment or the charging of hazardous materials lines might endanger the worker's safety, lockout and tagout procedures (IT Policy HS315) are required. Must the project extend more than 30 days with lockout/tagout planned for more than seven calendar days, or when locking/tagging out specialized equipment having its own lockout requirements, the Program CIH shall be notified for an addendum to this SSHP.

General Lockout/Tagout Requirements

Lockout and tagout procedures are required during maintenance of powered tools or equipment, during valve changeouts and other work on hazardous waste or materials lines,

and during confined space entries. Other tasks may also required lockout and tagout procedures if use of nearby equipment or material transfer lines could harm employees. The requirements of lockout and tagout include:

- Locks and tags are to be used when a machine, equipment or piping system is capable of being locked out. Tags alone are allowed only when the equipment will not accept locks. When only tag is used because machine or equipment can't be locked out, the following steps must be taken: Remove fuses, block machine, etc. and complete the "Lockout/Tagout Procedure for Specific Equipment" form (Attachment 8) and give to the site supervisor for the record.
- Authorized padlocks shall be assigned to each authorized employee. Each group's lock will be individually keyed and the shift supervisor shall maintain the master keys.
- All new equipment installed must be designed to accept a lockout device.
- Where multiple items must be locked out, a group lock box must be used.
- Where multiple locks must be placed on an item, a multiple lock hasp must be used.
- Only the protected employee may remove his/her personal lock. When the employee is no longer present and the lock must be removed, only that employee's immediate supervisor may remove the lock and tag, and only after ensuring that the employee is out of harm's way.
- All locks must be accompanied by a tag indicating the name of the employee applying the lock, the date the lock was applied, equipment name or number, the reason for the lockout and a warning against the potential hazard of activation.
- A legend must be displayed warning against activation and stating that the lock and tag may be removed only by authorized personnel.
- Tags must be single-use, hand-attachable, legible and designed to withstand the environment where they are in use. Tags must be self-locking and non-releasable with a minimum unlocking strength of 50 pounds.
- A "Lockout Log" (HS315 Attachment 3) shall be maintained by the site supervisor as part of the SSHP.

- The SPM or PS is responsible for informing the client of the lockout/tagout procedure to be used at the jobsite. This must be documented on Field Activity Daily Logs (FADLs).
- Subcontractors are to use IT's lockout/tagout procedure. Their own procedure may be used only after it has been reviewed and approved by the Project CIH.
- If the client has their own lockout/tagout requirements, these shall be implemented only after IT's requirements have been met.
- The SPM and PS shall assure that locks, hasps and other equipment and site specific training are provided.

Lockout/tagout procedures are not required when work is conducted on equipment where an employee has direct control over the cord(s) or plug(s) connected to the associated equipment.

Lockout/Tagout Checklist

Where lockout/tagout procedures are required, the following steps shall be followed:

- Check equipment file for specific lockout/tagout procedures.
- Determine the requirements for lockout. Document each energy source to the equipment.
- Conduct a survey to locate and identify all isolation devices that apply to the equipment.
- Use the equipment type-specific procedures if applicable (HS315 Attachments 4-7). Complete the "Lockout/Tagout Procedure for Specific Equipment" form (HS315 Attachment 8), logging all data, and return to supervisor.
- Shut off energy source(s) to affected equipment.
- Affix lock(s) and tag(s) to each energy source controlling the device.
- Identify work on process lines or vessels and determine isolation requirements.
- Blind, blank, disconnect or double-valve and vent all hazardous materials lines (including steam). Identify isolation points with tags.
- When a tag only is used because the equipment can't be locked out, complete the following:

- Remove fuses, block machine, etcetera.
- Complete HS315 Attachment 8 and give to site supervisor.
- Relieve all stored energy (e.g., capacitor banks, springs, compressed air, hydraulic and steam).
- Verify that isolation of energy has occurred by attempting to activate equipment at the on/off switch.
- Return the control switch to the off position before proceeding.

Before returning any equipment to service following lockout and tagout, the following procedures are required:

- Ensure that all nonessential items (e.g., tools and cleaning rags) are removed from the equipment.
- Ensure that equipment components are intact.
- Check work area to ensure that all employees are safely positioned or removed from the area.
- Notify all affected employees and site supervisor before re-energizing the equipment.
- Remove lockout/tagout device.
- Re-energize equipment or open valves and restore flow in process line; place back into service.

Where equipment must be locked out for longer than one work shift, the individual lock(s) of the outgoing shift working on equipment will be removed and replaced by the on-coming shift's individual lock(s). The authorized employees of the on-coming shift must inspect and "try" the system to ensure de-energization. The site supervisor shall re-audit the system as necessary.

4.8 Confined Space Entry

A confined space is defined as any work area which is large enough to enter, but which has limited means of access and egress and is not designed for continuous occupancy.

Routine confined space entry is not anticipated on this project. Must these operations become necessary, more detailed health and safety requirements will be established as addenda to this SSHP (see Appendix D).

In the event that entry into a confined space is required, the Program CIH must be notified and IT Procedure HS300: "Confined Space-Industrial" followed. Prior to entry, the confined space will be certified by an IT Qualified Person. Initial monitoring for combustibility, toxicity, and oxygen content will be conducted to determine the atmospheric class and subsequent protection level required. In addition, personnel entering the confined space must have completed training specifically for confined space entry.

4.9 Hearing Conservation Program

All on-site IT and subcontractor personnel shall wear hearing protection, with a Noise Reduction Rating (NRR) of at least 25, when noise levels exceed 85 dBA (or wherever voices must be raised in order to be understood at arms length). The SHSO will perform sound level monitoring or noise dosimetry on operations which require hearing protection. All site personnel who may be exposed to noise shall also receive baseline and annual audiograms and training as to the causes and prevention of hearing loss, in accordance with IT Procedure HS402.

Whenever possible, equipment that does not generate excessive noise levels will be selected for this project. If the use of noisy equipment is unavoidable, wherever possible, barriers or increased distance will be used to minimize worker exposure to noise.

Blasting or use of explosives is not permitted without written permission from the Navy's Contracting Officer and the Program CIH, and then only during designated times.

4.10 Heat Stress/Cold Stress Prevention

4.10.1 Heat Stress

Heat stress is a major hazard to personnel working in impermeable protective clothing. Therefore, measures will be taken in preventing heat stress, including:

- Site workers will be encouraged to drink plenty of water throughout the day. They will be advised to slightly increase their salt intake by lightly salting their food.
- On-site drinking water will be kept cool to encourage personnel to drink frequently.
- All personnel will be advised of the dangers and symptoms of heat stroke, heat exhaustion and heat cramps.
- All employees shall be informed of the importance of adequate rest, acclimation and proper diet in the prevention of heat stress disorders.

One or more of the following control measures can be used to help control heat stress and are mandatory if any site worker has a heart rate (measured immediately prior to rest period) in excess of 110 beats per minute:

- A work regimen that will provide adequate rest periods for cooling down will be established, as required.
- Cooling devices such as vortex tubes or cooling vests must be used when personnel must wear impermeable clothing in conditions of extreme heat.
- Employees must be instructed to monitor themselves and coworkers for signs of heat stress and to take additional breaks as necessary.
- A shaded rest area must be provided. All breaks must take place in the shaded rest area.
- Employees shall not be assigned to other tasks during breaks.
- Employees shall remove impermeable garments during rest periods. This includes white Tyvek-type garments.

Monitoring Program

For each day of field operations, the daily maximum and minimum temperatures on-site will be recorded. Additional heat stress monitoring shall be initiated by the SHSO whenever ambient temperatures on site exceed 85°F (or 78°F when workers are wearing impermeable clothing). At the discretion of the Program CIH, environmental and/or physiological monitoring will be carried out. Environmental monitoring shall consist of the determination

of Wet Bulb Globe Temperatures (WBGTs) when ambient temperatures exceed the values listed above. Physiologic monitoring may consist of pulse rate and/or body temperature determinations. Monitoring and interpretation of monitoring results will be in accordance with IT Procedure HS400, "Working in Hot Environments."

Reporting

Individuals experiencing the symptoms of heat stress shall notify the PS. The distressed individual shall immediately halt field activities and be treated for heat stress. Early detection and treatment of heat stress will prevent further serious illness or injury and lost work-time. Proper and effective heat stress treatment can prevent the onset of more serious heat stroke or exhaustion conditions. Individuals having progressed to heat exhaustion or stroke become more sensitive and predisposed to additional heat stress situations. Regardless of ambient temperature, physiological monitoring will be implemented if heat stress is experienced.

If symptoms of heat stress are observed, the following procedures will be implemented:

- Instruct the affected person to lie down in a cool, shaded area or air-conditioned room and elevate feet. Abbreviated decontamination procedures may be followed.
- Summon medical support, if appropriate. This is required in all cases of heat stroke or unconsciousness.

4.10.2 Cold Stress

Due to the moderate climate at the job site, cold stress is not a serious concern; however, all personnel must be aware that prolonged exposure to cold without proper clothing may impair their ability to work safely. To prevent such occurrence, the following measures must be implemented:

- Project workers must be provided with warm clothing, such as mittens, heavy socks, etc., when the air temperature is below 45°F. Protective clothing, such as Tyvek or other disposable coveralls, may be used to shield employees from the wind.
- When the air temperature is below 35°F, clothing for warmth, in addition to chemical protective clothing, will be provided to employees. This should include:

- Insulated suits, such as whole body thermal underwear
 - Wool socks or polypropylene socks to keep moisture off the feet
 - Insulated gloves
 - Insulated boots
 - Insulated head cover such as hard hat, winter liner, or knit cap
 - Insulated jacket, with wind and water resistant outer layer.
- At air temperatures below 35°F, the following work practices must be implemented:
 - If the clothing of a site worker might become wet on the job site, the outer layer of clothing must be water impermeable.
 - If a project worker's underclothing becomes wet in any way, the worker must change into dry clothing immediately. If the clothing becomes wet from sweating (and the employee is not uncomfortable), the employee may finish the task at hand prior to changing into dry clothing.
 - Project workers must be provided with a warm (65°F or above) break area.
 - Hot liquids such as soups or warm, sweet drinks shall be provided in the break area. The intake of coffee and tea should be limited, due to their circulatory and diuretic effects.
 - The buddy system shall be practiced at all times on site. Any site worker observed with severe shivering shall leave the work area immediately.
 - Project workers should dress in layers, with thinner lighter clothing worn next to the body.
 - Project workers should avoid overdressing when going into warm areas or when performing strenuous activities.
 - Employees handling liquids with a high vapor pressure, such as gasoline, methanol, or hexane, shall take special precautions to avoid soaking of gloves and clothing with those materials.

4.11 Fire Prevention

Smoking or open flames are prohibited except in designated smoking areas. Vehicles and equipment will not be left idling or parked in or around areas where catalytic converters may cause a fire. Equipment and vehicles should stay on the paved areas.

All flammable liquids will be stored in Underwriters Laboratory (UL) or Factory Mutual (FM) approved storage cabinets. Small quantities of most flammable liquids (five gallons or less) may be stored in work areas, or carried in vehicles, providing those materials will be used that day and will be contained in a safety can or other approved container. Class IA flammable liquids should be limited to two gallons in an approved safety can. Any

flammable wastes will be stored or disposed of in metal containers, clearly marked as containing flammable materials. Storage of combustible materials, in work areas, will be kept to a minimum.

A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used on the job site (excluding the integral fuel tanks of motor vehicles). Portable fire extinguishers shall be inspected monthly and serviced at least annually by a person licensed or registered by the State Fire Marshal.

Within occupied trailers, only UL approved electrical extension cords may be used. When outdoors, only double insulated or grounded electrical power tools may be used.

An IT Hot Work permit must be completed and posted prior to any hot work (such as welding or cutting) on site, including hot work performed by subcontractors. The base fire department must also be contracted to determine if other permits are required prior to hot work.

Dry chemical fire extinguishers, with minimum 5A, 30BC ratings will be provided at all field work areas. All vehicles shall be equipped with minimum 1A, 5BC rated fire extinguisher. Any trailers used as office or work space shall be provided with at least one 2A, 30BC rated fire extinguisher.

In the case of a fire on the site, the PS will assess the situation and direct fire fighting activities. IT personnel trained in the use of extinguisher may attempt to extinguish the fire with available extinguishers, if safe to do so.

4.12 Noxious Flora and Fauna

Site workers should inspect protected areas (e.g., boreholes, pits and storage areas) prior to reaching into them or entering them in any way. Stinging insects and their nests shall be avoided wherever possible, and workers shall wear long pants and gloves if necessary to protect them from insect bites and sharp or irritating plants.

4.13 Sanitation

Break Area

A designated break area shall be established in the support zone. The break area shall contain drinking water and be arranged to provide shade to workers during hot weather (>85°F).

Potable Water

The following rules apply for all field operations:

- An adequate supply of potable water shall be provided;
- Portable containers used to dispense drinking water shall be capable of being tightly closed, and equipped with a tap;
- All containers used for drinking water shall be clearly marked and not used for any other purpose; and
- Disposable cups will be supplied; both a sanitary container for unused cups and a receptacle for disposing of used cups shall be provided.

Outlets for nonpotable water shall be identified to clearly indicate that the water is unsafe and is not to be used for drinking or washing. There shall be no cross connection (open or potential) between potable and nonpotable water systems. Nonpotable and potable water systems shall be physically separated so as to minimize confusion and possible cross contamination.

Toilet Facilities

A minimum of one separate toilet facility shall be provided for each 20 employees, or fraction thereof, of each sex. Such facilities may include both urinals and toilets, with the provision that the number of toilets is at least half of the minimum required number of facilities. Where there are less than five employees, separate toilet facilities for each sex are not required provided the toilet facilities can be locked from the inside and contain at least one toilet.

Toilet facilities on the site are to be kept clean, maintained in good working order and provided with an adequate supply of toilet paper.

Food Handling and Storage

There shall be no handling of food in the contaminated work areas of the work area. Food may be stored in refrigerators, however, those refrigerators may only be used for storage of foods, and beverages. Refrigerators used for sample or chemical storage should be clearly marked as such.

Trash Collection

Trash generated by project personnel will properly be disposed of in trash receptacles. These receptacles will be emptied regularly.

4.14 Dust Control

Project personnel will take all reasonable precautions to minimize the generation of dust at the worksite. Such precautions include operating vehicles in a slow and deliberate manner and working materials in a wet state whenever possible. Where dust generation is significant, the Program CIH will be contacted to establish an air monitoring program and dust reduction measures (up to and including misting of the dust cloud or ceasing operations) shall be implemented.

Additional dust control measures include:

- The soil may be treated with dust superannuates if necessary.
- Dry brooming and dry power brooming are prohibited. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming.
- Air blowing shall not be permitted for cleaning surfaces.
- Only wet cutting is permitted for cutting concrete blocks and concrete.

4.15 Housekeeping

To minimize slip trip and fall hazards caused by poor housekeeping, the following measures shall be taken:

- Work areas shall be inspected daily for adequate housekeeping and findings recorded on daily inspection reports.
- All stairways, passageways, gangways, and accessways shall be kept free of materials, supplies, and obstructions at all times.

- Loose or light material shall not be stored or left on roofs or floors that are not closed in, unless safely secured.
- Tools, materials, extension cords, hoses, or debris shall not be placed where they may cause tripping or other hazards.
- Tools, materials, and equipment subject to displacement or falling shall be adequately secured.
- Empty bags having contained lime, cement, and other dust-producing material shall be removed and properly disposed of immediately.
- Scrap lumber and debris shall be cleared from work areas and accessways.

5.0 Personal Protective Equipment

Based upon the job hazard analysis, it is expected that project personnel will utilize Level D protective clothing for most project activities. Level C or Level B protective clothing may be required for entry into confined spaces or other operations depending upon the levels of contaminants as measured at the time of entry. It is anticipated that ventilation of any confined spaces will result in atmospheres with no hazardous levels of contaminants. If conditions warrant higher levels of protection, site work will be suspended until such conditions can be rectified. Specific requirements for personal protective equipment (PPE) to be used during confined space entry will be specified in the SSHP Addendum for confined space work, if necessary.

5.1 Levels of Protection

Levels of protection have been assigned to each task in accordance with Table 3.

5.1.1 Level D

The minimum level of protective equipment to be worn on site during this project is:

- Hard hat, American National Standards Institute (ANSI) approved
- Safety glasses, ANSI approved
- Steel-toed boots or shoes, ANSI approved
- Long pants.

If noise levels exceed 85 dBA, then hearing protection with a U.S. EPA NRR of at least 25 dBA shall be used.

5.1.2 Level C

Level C protection will not be used on this project without contacting the Program CIH for an addendum to this SSHP.

5.1.3 Level B

Level B protection will not be used on this project without contacting the Program CIH for an addendum to this SSHP.

5.1.4 Level A

Level A protection will not be used.

5.2 Respiratory Protection Program

The IT respiratory protection program (HS601) will apply to all activities requiring the use of respirators at the site. Basic requirements are as follows:

- All site personnel will have an assigned respirator face piece.
- All site personnel will have been medically qualified, fit tested, and qualified in the use of the appropriate respirator within the past 12 months.
- Only properly cleaned, maintained, NIOSH-approved respirators are to be used on this site with HEPA filters.
- If air-purifying respirators are used, the respirator cartridge is to be disposed of at the end of each work shift, or when load-up or breakthrough occurs.
- Contact lenses are not to be worn when a respirator is required.
- All site personnel will be clean shaven in facial areas which touch the sealing surface of the respirator.
- Respirators will be regularly inspected; a positive and negative pressure test will be performed prior to each use.
- When respirators are being used, they shall be cleaned at the end of the work shift using mild soap and warm water, and left to air dry. After drying, the respirator will be stored in a clean plastic bag.

5.3 Using Personal Protective Equipment

All persons entering the EZ shall don the required PPE in accordance with the entries listed in Table 3. When leaving the EZ, PPE will be removed in accordance with the procedures listed, in order to minimize the spread of contamination.

5.3.1 Donning Procedures

These procedures are mandatory, only if Level C or higher PPE is required for the project:

- Remove bulky outerwear.
- Put on the required chemical protective coveralls.
- Put on chemical protective boots.
- Tape the legs of the coveralls to the boots with duct tape.
- Put on chemical protective gloves.
- Tape the wrists of the protective coveralls to the gloves.
- Don respirator if required, and perform appropriate fit check.
- Put hood or head covering over head and respirator straps.
- Don remaining PPE, such as safety glasses or goggles and hard hat.

If these procedures are instituted, one person shall remain outside the work area to ensure that each person entering has the proper protective equipment. No persons shall be allowed to enter an EZ if they are not wearing the required PPE.

5.3.2 Doffing Procedures

Whenever a person leaves a work site requiring Modified Level D or higher PPE, the following decontamination sequence will be followed:

- Upon entering the CRZ, rinse contaminated materials from the boots.
- Clean reusable protective equipment.
- Remove protective garments, equipment, and respirator (if worn). All disposable clothing should be placed in plastic bags, which are labeled with contaminated waste labels.
- Wash face and neck.
- Proceed to clean area and dress in clean clothing.

- Clean and disinfect respirator for next use.

All disposable equipment, garments, and PPE shall be bagged in plastic bags, and properly labeled for disposal.

5.4 Selection Matrix

The level of personal protection selected will be based upon real-time air monitoring of the work environment and an assessment by the Program CIH or SHSO of the potential for skin contact with contaminated materials. The PPE selection matrix is given in Table 3.

5.5 Personal Protective Equipment for Visitors

An adequate supply of hard hats, safety glasses and other personal protective equipment shall be maintained on-site for use by government personnel and other visitors. Visitors are not to be supplied with chemical protective clothing without prior approval by the SHSO, and proper training documentation. Respirators will not be issued to non-IT personnel under any circumstances.

6.0 Site Control

Only personnel who have completed 40 hours of hazardous waste operations as defined under 29 CFR 1910.120 and T8 CCR 5192, have completed their 40-hour training or refresher training within the past 12 months, and have been certified as fit for hazardous waste operations by a physician within the past 12 months shall be allowed within a site area designated as an EZ or CRZ. Personnel without such training may only enter the designated support zone. Only properly trained personnel will be allowed within the EZ or CRZ.

6.1 Hazard Briefing

No person will be allowed on the site during site operations without first being given a site hazard briefing. In general, the briefing will consist of a review of the tailgate safety meeting. All persons on the site, including visitors, must sign the site-specific tailgate safety meeting form. Tailgate safety meetings shall be held daily, involving all personnel on site.

6.2 Documentation of Certification

A subcontractor training and medical file will be established for the project and kept on site during all site operations. The 40-hour training, update, and specialty training (first-aid/cardiopulmonary resuscitation [CPR]) certificates, as well as the current annual medical clearance for all subcontractor personnel, will be maintained within that file. All IT and subcontractor personnel must provide their training and medical documentation to the SHSO prior to the start of field work. Documentation will be maintained at the project home office.

6.3 Entry Log

The SHSO at the site shall record on their Field Activity Daily Log (FADL) the names of all personnel who enter the CRZ or EZ. These FADLs shall be incorporated into the project file.

6.4 Entry Requirements

In addition to the entry requirements listed above, no personnel will be allowed in any EZ or CRZ unless they are wearing the minimum PPE as described in Chapter 5.0.

7.0 Decontamination

The project area will be divided into three work zones: exclusion zone (EZ), a contamination reduction zone (CRZ), and a support zone. The PS and Program CIH or SHSO shall together be responsible for designation of the work zones.

The EZ will include any area where chemical contamination may occur and will be marked with barrier tape or other means to warn personnel of the hazards. Only IT personnel and authorized visitors who can provide documentation of 40-hour hazardous waste training and medical exams, and who are wearing the required PPE, will be allowed within this zone.

Immediately adjacent to the EZ, a CRZ with a decontamination area for equipment and personnel will be established. This area will also be delineated with traffic cones and/or barrier tape.

The remainder of the IT project area will be designated as the support zone. No special markings or warning labels are required for this area.

7.1 Personnel Decontamination

All personnel working in the EZ must undergo personnel decontamination prior to entering the support zone. The personnel decontamination area shall consist of the following steps.

Step 1. Personnel leaving the contaminated zone will remove any gross contamination from their outer clothing and boots.

Step 2. Personnel will remove their Tyvek™ coveralls and gloves. Personnel will remove their respirators (if used), hard hats, and boots.

Step 3. Personnel will thoroughly wash their hands and face before leaving the decontamination zone. Respirators will be sanitized and then air dried. Respirators are to be stored in a clean plastic ziplock bag.

7.2 Equipment Decontamination

Any vehicles with detectable contamination will be decontaminated prior to leaving the decontamination zone. If the level of contamination is low, decontamination for vehicles will be limited to rinsing of tires with water. The SHSO or Program CIH will determine if steam cleaning or pressure washing of vehicles and equipment will be required.

7.3 Personal Protective Equipment Decontamination

Whenever possible, single use, external protective clothing shall be used for work within the EZ or CRZ. This protective clothing shall be disposed of in marked containers.

Reusable protective clothing will be rinsed at the site with detergent and water.

8.0 Site Monitoring

8.1 Air Monitoring

Air monitoring is essential to ensure that all field personnel are adequately protected from airborne contaminants. The levels of organic vapors in the work area will be monitored using a photoionization detector (PID) or flame ionization detector (FID) whenever work that might generate hazardous airborne concentrations of contaminants. This condition is not anticipated during the Phase I work.

Inorganic dusts will be monitored using matched weight filters and sampling pumps.

Combustible gas readings shall be conducted in the work areas if flammable contaminants are anticipated. All air monitoring results shall be documented in project logs.

The Program CIH may direct the SHSO to conduct integrated personal exposure monitoring. Integrated air samples will be analyzed through a laboratory accredited by the American Industrial Hygiene Association (AIHA).

8.1.1 Locations to be Monitored

All personal, integrated air monitoring samples and direct reading instrumentation readings taken for the purpose of determining appropriate health and safety precautions shall be collected/taken in the approximate "breathing zone" of site personnel.

If entry into a confined space is deemed necessary, combustible gas, oxygen, and total organics readings will be collected and recorded from the top, middle, and bottom of the excavation prior to initial entry. Once the IT entry supervisor and/or SHSO has reviewed this information, determined the PPE necessary for entry, and the entry has been initiated, readings shall be taken in the approximate "breathing zone" of the IT employee(s) working within the confined space. Readings may also be taken in other locations to determine areas of localized contamination or combustibility within the confined space. Work shall stop and all personnel shall exit the confined space when readings exceed acceptable values at any location within the space.

8.1.2 Frequency

Breathing zone air monitoring must be conducted periodically throughout the day while work is being performed in the EZ regardless of the level of protection being worn. Such readings must be documented on FADL forms even if contaminant concentrations are "nondetectable."

8.1.3 Monitoring Equipment Maintenance and Calibration

All IT PIDs will be calibrated in accordance with IT Procedure HS603 and the manufacturer's instructions. Preventive maintenance and repairs will be conducted in accordance with the respective manufacturers' procedures.

All other IT air monitoring equipment (e.g., combustible gas/oxygen meters and aerosol monitors) will be maintained and calibrated in accordance with the specific manufacturers' procedures.

All personal sampling pumps shall be calibrated in accordance with OSHA sampling protocols and NIOSH methods for the analyte of interest.

All direct reading instrumentation calibrations should be conducted under the approximate environmental conditions the instrument will be used. All air monitoring equipment calibrations and maintenance activities shall be documented on the IT FADL, or equivalent.

When applicable, only manufacturer-trained and/or authorized IT personnel will be allowed to perform instrument repairs or preventive maintenance (e.g., repairs on the hydrogen handling or electrical components of an organic vapor analyzer [OVA]).

8.2 Noise Monitoring

Noise monitoring may be performed by the SHSO under the direction of the Program CIH if high noise levels are routinely encountered. High noise levels are considered to be noise levels which make normal conversation difficult to understand at arm's length. The PS is to contact the SHSO or Program CIH if this situation is routinely present.

8.3 Heat Stress

Heat stress monitoring shall be initiated whenever ambient temperatures on site exceed 85°F. At the discretion of the Program CIH, environmental and/or physiologic monitoring will be

carried out. Environmental monitoring shall consist of the determination of Wet Bulb Globe Temperatures (WBGTs). Physiologic monitoring may consist of pulse rate and/or body temperature determinations.

8.4 Safety Reviews

Jobsite safety reviews (audits) shall be conducted by all levels of project management.

Specifically:

- The SHSO shall inspect the jobsite at least daily. Findings shall be documented on FADLs and communicated to the PS.
- The PS shall conduct a safety audit with the SHSO at least weekly. Findings shall be documented on FADLs and communicated to project workers, the SPM and Program CIH.
- The SPM shall conduct an on-site safety audit at least monthly. Findings shall be documented on Safety Inspection Report (SIR) forms and copied to the Program CIH. Whenever possible, the Program CIH shall be included in these audits.
- The Program CIH may conduct unannounced jobsite safety audits at anytime. Findings will be documented on SIRs and copied to the SPM and Program Manager.

8.5 Monitoring Records

The SHSO shall ensure that site monitoring records are complete and incorporated into the project file. Any personnel or area air monitoring results will be incorporated into the host office health and safety files. The Program CIH will be responsible for establishing, maintaining, and forwarding to other IT offices (as necessary) all required monitoring information as described below for placement in individual employee files:

- Employee name, social security number, payroll number
- The date, time, pertinent task information, exposure information
- Description of the analytical methods, equipment used, and calibration data
- Type of PPE worn
- Engineering controls used to reduce exposure.

8.6 Notification

The Program CIH will ensure that each employee is informed in writing of the results which represent that employee's exposure. Monitoring results representative of an employee's exposure shall be reported in writing to the affected employee, with copies retained in the project file and the employee's medical file.

Whenever the results indicate that the representative employee exposure exceeds the Permissible Exposure Limit (PEL), the notification shall state that the PEL was exceeded, and shall provide a description of the corrective action taken to reduce exposure to a level below the PEL.

IT may conduct industrial hygiene monitoring on subcontractor employees. Notification of subcontractor personnel of industrial hygiene monitoring results is the responsibility of the subcontractor.

9.0 Employee Training

9.1 General

All personnel entering the EZ or CRZ shall have completed at least 40 (or, for certain tasks, 24) hours of hazardous waste operations-related training, as required by 29 CFR 1910.120 and T8 CCR 5192. All field employees must have received a minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor. Those personnel who completed the 40-hour training more than 12 months prior to the start of the project shall have completed an 8-hour refresher course within the past 12 months. The PS, SPM, and Program CIH shall have completed an additional 8 hours of relevant supervisory health and safety training. With the exception of subcontractor personnel who will be working only in the support zone, subcontractor personnel must meet the above training requirements (Appendix B), with subcontractor supervisors also required to have the 8-hour hazardous waste supervisor training.

A copy of each training certificate will be maintained at the project job site. Subcontractors must provide certificates of training for the project file for all employees assigned to the project, if they will be working in either the EZ or CRZ. Training certificates for both subcontractor and IT personnel shall be maintained on-site.

9.1.1 Tailgate Safety Meetings

Prior to the start of the project, all personnel will participate in an initial tailgate safety meeting. During the initial tailgate safety meeting, the SSHP will be discussed. The PS will ensure that the anticipated site hazards are summarized and explained to all personnel, and that those personnel are aware of the precautions they must take to minimize their exposure to those hazards. Tailgate safety meetings will be held at the start of each work shift. All new employees must attend the meeting and be familiar with this SSHP.

Attendance records and meeting notes shall be maintained with the project files.

9.1.2 Material Safety Data Sheets

The SSHP includes MSDS and occupational health guidelines for chemical substances known to be on site (see Appendix C). The SSHP is maintained on site and is accessible to all site

employees. Each employee is required to review and sign the SSHP before starting work on the site. The SHSO will provide training to project personnel covering the hazards of any and all materials for which an MSDS has been obtained.

9.1.3 Site-Specific Health and Safety Plan

The SHSO presents the SSHP (including all attached MSDSs) and discusses it with all personnel assigned to the project. All workers and visitors must read and sign the SSHP acknowledging acceptance of site rules and understanding of site hazards before the start of the site work.

9.2 Site Workers' Basic Course

Each site worker shall have received training (either HAZWOPER or site-specific) on the following subjects prior to performing field work:

- General site safety
- Physical hazards (fall protection, noise, heat stress, cold stress)
- Names and titles of key personnel responsible for site health and safety
- Safety, health, and other hazards typically present at hazardous waste sites
- Use of PPE
- Work practices by which employees can minimize risks from hazards
- Safe use of engineering controls and equipment on site
- Medical surveillance requirements including recognition of symptoms and signs which might indicate overexposure to hazards
- Worker right-to-know (Hazard Communication, 29 CFR 1910.1200) and T8 CCR 5194.
- Routes of exposure to contaminants
- Engineering controls and safe work practices
- Components of the site health and safety program

- Decontamination practices for personnel and equipment
- Confined-space entry procedures
- Emergency response plan.

9.3 Supervisors' Course Content

Management and supervisors must receive an additional eight hours of training that includes:

- General site safety and health programs;
- PPE programs;
- Air monitoring techniques;
- Spill containment techniques.

9.4 Site-Specific Training

Site-specific training will be accomplished through an initial review of this SSHP by the SHSO and through the daily tailgate safety meetings. All such training shall include signatures of all attendees and shall be documented to the project files.

9.5 First Aid and Cardiopulmonary Resuscitation (CPR)

At least two employees current in first aid/CPR will be assigned to the work crew and at least one of these will be on the site whenever operations are ongoing. First aid and CPR training courses are offered to all IT employees. Refresher training in first aid and CPR is required to maintain the currency of the certificate. The SHSO shall be current in first aid/CPR training.

9.6 Instructors

All HAZWOPER training courses for IT employees must either be taught by IT instructors, or by outside firms which have been approved by the Program CIH.

Initial training of project workers on the SSHP shall be conducted by the SHSO or Program CIH.

Daily Tailgate Safety Meetings and other on-the-job training shall be routinely conducted by either the SHSO or the PS. The PS shall not delegate all safety-related training to the SHSO.

10.0 Medical Surveillance Program

10.1 Physical Examinations

All on-site project personnel shall within the past 12 months have completed a comprehensive medical examination that meets the requirements of 29 CFR 1910.120 and T8 CCR 5192.

The annual medical typically includes the following elements:

- Medical and occupational history questionnaire
- Physical examination
- Complete blood count, with differential
- Liver enzyme profile
- Chest X-ray, once every three years, for non-asbestos workers
- Pulmonary function test
- Audiogram
- Electrocardiogram (EKG) for persons older than 35 years of age, or if indicated during the physical examination
- Drug screening
- Visual acuity
- Follow-up examinations, at the discretion of the examining physician or the corporate medical director.

The examining physician provides the employer with a letter confirming the worker's fitness for work and ability to wear a respirator. A copy of this letter for all personnel, including subcontractors, will be kept on site during all project site work.

Subcontractors will certify that all their employees have successfully completed a physical examination by a qualified physician on the Certification Form (Appendix B). The physical examinations shall meet the requirements of 29 CFR 1910.120, 29 CFR 1910.134,

T8 CCR 5192, T8 CCR 5144, HS100 and HS101. Subcontractors will supply copies of the medical examination certificate for each on-site employee.

10.1.1 Preplacement Examination

All employees will receive a preplacement medical examination prior to assignment to field operations.

10.1.2 Annual Examination

Each year subsequent to the placement examination, all employees and subcontractors must undergo an annual examination and drug screen similar in scope to the preplacement examination. IT employees hired prior to 1985 are not required to submit to drug screening. Chest X-rays are taken every third year. The medical and occupational history is updated with each examination.

10.1.3 Exit Examination

IT employees receive an exit examination upon leaving the company if they have not been examined within the previous six months. The exit examination consists of the annual examination without drug screen. The employee's immediate supervisor is to notify the Program CIH within a reasonable time before the termination to allow for the necessary arrangements.

10.2 First-Aid and Medical Treatment

All persons on site must report any near-miss incident, accident, injury, or illness to their immediate supervisor or the Field Supervisor. First aid will be provided by the designated site first aider. Injuries and illnesses requiring medical treatment will be accompanied by an "Authorization for Treatment" Form. The employee's supervisor or the Field Supervisor will complete the "Supervisor's Employee Injury Report" and conduct an accident investigation as soon as emergency conditions no longer exist and first-aid and/or medical treatment has been rendered. The investigation should follow the Accident/Injury Investigation Report. These two reports must be completed and submitted to the SHSO within 24 hours after the incident.

First-aid kits are kept at the CRZ and in all IT vehicles. If treatment beyond first aid is required, the injured should be transported to the medical facility listed in Chapter 12.0 of this SSHP and the PS should immediately contact IT's contract physicians, Environmental

Medicine Resources (EMR) at (800) 416-3669. The PS should describe to EMR the circumstances leading to the injury or illness. If the injured is not ambulatory or shows any sign of not being in a comfortable and stable condition for transport, then an ambulance/paramedics should be summoned. If there is any doubt as to the injured worker's condition, it is best to let the local paramedic or ambulance service examine and transport the worker.

10.3 Medical Restriction

When a medical care provider identifies a need to restrict work activity, the employee's home office HS Assistant will communicate the restriction to the employee, their supervisor, and the Program CIH. The terms of the restriction will be discussed with the employee and his supervisor. Every attempt will be made to keep the employee working, while not violating the terms of the medical restriction.

10.4 Medical Records

Medical and personal exposure monitoring records will be maintained according to the requirements of 29 CFR 1910.120, T8 CCR 5192 and HS103, and shall be kept for 30 years post employment. Employee confidentiality shall be maintained. Employees and their authorized representatives have access to these records through the HS Assistant.

11.0 Bloodborne Pathogen Exposure Control Plan

This section serves as a Bloodborne Pathogen Exposure Control Plan for IT workers who may serve as voluntary first aid and CPR care providers. At all times, at least one person on site will be adequately trained in first aid and CPR, in the requirements of the Bloodborne Pathogens Standard as listed in 8 CCR 5193, IT Procedure HS512, and in the contents of this plan.

11.1 Definitions

Bloodborne Pathogens

Bloodborne pathogens are those agents (i.e., bacteria, virus, fungi) found in blood, blood components, certain body fluids, and other materials, objects, or surfaces that have had contact with blood that are capable of causing human disease or death to unprotected people who came into contact with blood or blood-affected items. Diseases caused by bloodborne pathogens include, but are not limited to, hepatitis B virus (HBV), human immunodeficiency virus (HIV), hepatitis C, malaria, and syphilis. The most significant and of greatest concern are HBV and HIV.

Hepatitis B

HBV is the major bloodborne pathogen hazard that first aid/CPR care providers are more likely to encounter. The HBV can remain infectious for up to 10 days even in dried blood. The virus adversely affects 8,000 to 10,000 workers annually resulting in approximately 200 deaths each year. Hepatitis means "inflammation of the liver" causing severe liver damage or cirrhosis. Exposure symptoms include fever, fatigue, nausea, vomiting, muscle aches, loss of appetite, and jaundice (yellowing of the eyes or skin). Hepatitis diagnosis is difficult because some symptoms are similar to the flu and may remain mild for an extended period of time. Presently, no cure exists for hepatitis, but it can be prevented with a vaccination.

Human Immunodeficiency Virus

HIV attacks and deteriorates the body's immune system and eventually weakens it to the point that infection sets in causing the disease Acquired Immune Deficiency Syndrome (AIDS). HIV is primarily transmitted through sexual contact, but may also be transmitted

through contact with blood and body fluids. HIV is not transmitted by touching or working with people who are HIV-positive.

Human Immunodeficiency Virus Exposure Symptoms

HIV leads to AIDS-related illnesses which eventually cause neurological problems, cancer, pneumonia, and death. People may carry the virus for many years of their lives without experiencing any symptoms. Upon development, symptoms may include weight loss, skin lesions, dry cough, fever, fatigue, diarrhea, or swelling of the lymph glands.

Presently, no cure exists for HIV or AIDS and no vaccination is currently available.

11.2 Exposure Determination

Persons in any job classifications at IT may be exposed to bloodborne pathogens when administering first aid or CPR, or during decontamination of equipment/surfaces contaminated by blood or other potentially infectious materials during an incident.

IT employees could be subject to bloodborne pathogens exposure due to:

- Punctures through the skin with a contaminated sharp object (i.e., scissors)
- Contact or absorption of blood or blood-contaminated objects through open or broken skin (i.e., cuts, scratches, rashes)
- Blood splashes to their eyes, nose, or mouth or other mucous membranes.

Workers can reduce their risk of contacting HBV or HIV by implementing the proper work practices (outlined in this plan) before, during, and after responding to emergency medical incidents involving personal injuries.

11.3 Measures for Prevention

The establishment of work practice controls is an integral part of an effective exposure control plan in preventing accidental infection of employees. These work practices are designed to protect employees from reasonably foreseeable occupational exposures to bloodborne pathogens from blood and other potentially infectious material. The work practice controls outlined in this section are applicable to the administration of first aid in emergency situations and subsequent cleanup only.

Universal Precautions

Universal precautions is an approach to infection control which operates on the assumption that all human blood and bodily fluids are to be treated as if they are known to be contaminated with HIV, HBV, or other infectious diseases. Universal precautions shall be implemented whenever there exists a foreseeable potential for contact with blood or bodily fluids.

Engineering Controls

Due to the remote location of the worksite, the nature of work in outdoor locations with potential exposure to airborne chemical contaminants, and the potential for exposure being limited to emergency situations, the implementation of engineering controls is not feasible. Exposure control shall be accomplished through implementation of work practice controls and use of personal protective equipment.

Work Practice Controls

Work practice controls shall be instituted whenever foreseeable potential contact with, or exposure to, blood and bodily fluid exists. Examples of situations in which these controls are to be implemented include, but are not limited to, accidents or injuries in which administration of first aid is required, application of bandages to minor cuts and abrasions of another person, and contact with sores, wounds, or broken skin.

Following are specific work practice controls that shall be implemented:

- Open wounds or cuts will be promptly bandaged.
- Wash hands and face as soon as possible after administering first aid or CPR. If wash facilities are not readily available, stock disposable one-time use towelettes.
- No eating, drinking, or smoking is allowed in any work area where a potential exists for occupational exposure to blood borne pathogens.
- Non-disposable equipment or materials that have or may have blood or infectious fluid contact must be washed immediately after their use. (A 1 to 10 solution of bleach and water is recommended proper decontamination.)
- Any clothing that becomes contacted with blood or infectious fluids shall be removed as soon as possible after administering first aid or CPR.

- No personal clothing that becomes contacted with blood or infectious fluids shall be laundered off-site.
- Ensure that first-aid kits on-site are equipped with a pair of surgical gloves and CPR mouth pieces.

Direct contact with blood and bodily fluids should be kept to an absolute minimum, as required in a particular situation. In situations where direct contact is likely, personal protective equipment shall be worn to help prevent infection.

Based upon professional judgment, an employee may choose to temporarily forego the use of PPE if he determines that the use of PPE will further jeopardize his well-being or that of the injured worker. This limited application must be carefully evaluated by the employee. If this does occur, IT is obligated to investigate and document the circumstances in an effort to provide alternative means to avoid further occurrence.

Personal Protective Equipment

The following are specific personal protective equipment items that shall be implemented:

- Always wear hand (i.e. latex or nitrile surgical gloves) and eye (i.e. safety glasses, goggles) protection to administer or apply first aid or CPR.
- Always use CPR mouthpieces or ventilation devices.
- Inspect PPE prior to use to ensure it is in good working order and without flaws.
- Do not reuse gloves once removed.
- After use, remove gloves from top to bottom inside-out, not allowing unprotected skin to contact the exterior of the gloves.

Waste Handling and Disposal

Disposable items that have or may have blood contact must be bagged separately from other trash. These wastes must be placed in leak proof containers or bags and labeled. A collection container for contaminated articles will be available on-site. Wastes used in medical emergency treatment (i.e. gloves, towels, gauze) shall be disposed in the infectious waste container(s). The container will be replaced as needed and not be overfilled.

The waste will remain on site in approved container(s) until an approved disposal facility capable of receiving medical wastes is identified. If emergency medical teams who respond to an incident are unable to accept blood-contaminated waste, the Program CIH shall be contacted to arrange for proper disposal.

11.4 Medical Requirements

Hepatitis B Vaccination

All potentially exposed employees will have made available to them at no cost a Hepatitis B vaccination. The employee will also receive training as to the vaccine's efficacy, safety, benefits, and consequences prior to administration. The vaccination series shall be initiated within 24 hours of providing first aid/CPR in an incident and shall be administered under the supervision of a licensed physician. Employees may at their own discretion decline the vaccination, in which case documentation of declination will be completed and employees may be assigned immediately. If an employee covered by this exposure plan decides to accept the vaccination at a later date, the vaccination will be offered at that time at no cost to the employee.

Post-Exposure Procedures and Evaluation

Subsequent to all reported exposure incidents, a confidential medical evaluation and follow-up shall be made available to each employee exposed in the incidents.

Documentation Procedures

Documentation of the exposure incident shall be recorded as soon as possible, and include the route(s) of exposure, the circumstances surrounding the incident, and the identification of the source individual. Additionally, each incident shall be placed on the "first aid incident list" attached to the location OSHA Log of Occupational Injuries and Illnesses.

Blood Testing

As soon as feasible, the source individual in an exposure incident will be asked to consent to a blood test to determine HBV and HIV infectivity. Where applicable laws require employee consent, documented consent shall be obtained prior to testing. If an employee refuses the blood test, documentation of the refusal will be made. Documentation of the test results shall be made available to the exposed employee(s). All results should be kept confidential, as

criminal and civil penalties may be charged against persons negligently or wilfully releasing such information.

Exposed employees will be asked to consent to a blood test for HBV and HIV serological status. If consent to HIV testing is denied, the blood sample will be preserved for 90 days, within such time the employee may elect to consent to the HIV test.

Post-Exposure Medical Evaluations

Exposed employees shall receive a healthcare professional's written opinion for post-exposure evaluations. The written opinion shall include the results of the evaluation and any medical conditions resulting from the exposure incident which requires further medical treatment.

11.5 Bloodborne Pathogen Hazard Communication

- Containers used for disposal of blood contaminated supplies and waste will be labeled in accordance with the word "biohazard."
- Warning signs are not applicable, as there are no designated areas for medical treatment on site. In cases of potential exposure observers and non essential personnel should be verbally warned to keep a safe distance from injured personnel.
- All associates who are first aid/CPR trained and may provide assistance shall be trained in the requirements of HS512 and this SSHP.

11.6 Recordkeeping

Training Records

All employees on the project shall review this plan and sign it to document their review. In addition, all employees who attend Bloodborne Pathogen training shall sign the class Training Attendance Form. The training record will contain the date; training outline; name and qualifications of the trainer, and names and job titles of attendees. All participants must take and pass the training quiz. The training records will be maintained by the IT Training Department for at least three years from the training date.

Medical Records

Medical records necessary for IT employees must include documentation on HBV vaccination status, medical follow-up, post-exposure testing, and a medical professional's written evaluation. The employee medical records will be forwarded to EMR (see Chapter 12.0) for inclusions in the employee's medical file.

IT shall maintain the employee medical records for the duration of the employee's employment plus 30 years thereafter. If, for whatever reason, IT no longer does business and no successor exists, IT will notify the Director of NIOSH in writing three months prior to the disposal of records. If so directed, the records shall be transferred to the Director of NIOSH.

Incident Recording

An incident that occurs as a result of rendering emergency medical care will be recorded on the OSHA 200 log as OSHA defines work-related injuries and illnesses. All injuries involving the release of blood or other bodily fluids must be immediately reported to the Health and Safety Department to ensure proper reporting and followup.

12.0 Emergency Response Plan

12.1 General

The SHSO will establish evacuation routes and assembly areas for each site. All personnel entering the site will be informed of these routes and assembly areas. A map of the evacuation routes and muster points will be posted at the jobsite.

In the case of site evacuation, the following procedures shall be observed:

- Stop working, secure equipment, and return to the CRZ for decontamination.
- Walk to the designated muster point.
- Notify the SPM and SHSO.
- Remain at the muster point until further information is received.

Personnel should not stand in driveways or in front of gates, as these locations may be traffic routes for emergency and support vehicles entering the site.

Each site activity will be evaluated for the potential for fire, explosion, chemical release, or other catastrophic events. Unusual events, activities, chemicals, and conditions will be immediately reported to the PS and SHSO.

12.2 Emergency Procedures

If an incident (personal or vehicle accident, property damage, or near-miss) occurs, the following procedures will be used:

- The PS will evaluate the incident, assess the need for assistance, and notify the client.
- The PS will call for outside assistance as needed.
- The PS will act as liaison between outside agencies and on-site personnel.
- The PS will ensure the Senior Project Engineer/Manager and SHSO are notified immediately of the incident.

- The PS will take appropriate measures to stabilize the incident scene.
- The SHSO will provide technical guidance to the PS as needed.
- The SPM will ensure that any injured employee's supervisor completes a Supervisor's Employee Injury Report (SEIR) Form and forwards the form to the Program CIH within 24 hours of the incident.

12.3 Safety Signals

While working on site, the following hand signals will be used for communication when necessary.

| <u>Hand Signal</u> | <u>Meaning</u> |
|-------------------------|------------------------------------|
| Hand gripping throat | Out of air, can't breath |
| Both hands around waist | Leave area immediately |
| Wave hands over head | Need assistance |
| Thumbs up | Okay, I am all right, I understand |
| Thumbs down | No, negative |

Vehicle or portable air horns will be used for alarm signals as follows:

- One long blast: Emergency evacuation of the site
- Two short blasts: Clear working area around powered or moving equipment.

12.4 Medical Emergency

All employee injuries must be promptly reported to the PS. The Field Coordinator will:

- Ensure that the injured employee receives prompt first aid and medical attention.
- Contact EMR, Inc. (1-800-416-3669) whenever medical attention is required to ensure that appropriate services are provided.
- Complete the appropriate form or forms and submit them to the Program CIH within one business day of an incident. Forms include:

- Supervisor's Employee Injury Report (SEIR, form HS020A, to be completed by the employee's supervisor)
 - Vehicle Accident Report (form HS020B)
 - General Liability, Property Damage and Loss Report (form HS020C)
- Ensure that the SPM and Program CIH are immediately notified of the incident.
 - Initiate an investigation of the incident, with the assistance of an HS representative.

Chemical Inhalation

Any employee complaining of symptoms of chemical overexposure will be removed from the work area and transported to the designated medical facility for examination and treatment. The PS must contact EMR, the SHSO, and the Program CIH as soon as possible.

Eye Contact

Project personnel who have had contaminants splashed in their eyes or who have experienced eye irritation while in the contaminated zone, shall immediately proceed to the eyewash station, set up in the decontamination zone. Do not decontaminate prior to using the eyewash. Remove whatever protective clothing is necessary to use the eyewash. Thoroughly flush the eye with clean water. Arrange prompt transport to the designated medical facility.

This eye wash station shall contain enough clean solution to provide at least 15 minutes flushing to both eyes. The units may be pressurized or gravity feed.

Skin Contact

Project personnel who have had skin contact with contaminants will, unless the contact is severe, proceed through the decontamination zone, to the wash-up area. Personnel will remove any contaminated clothing, and then wash the affected area with water. The worker should be transported to the medical facility listed below, if they show any sign of skin reddening, irritation, or if they request a medical examination.

Personal Injury Accident

In the event of a personal injury accident, the PS will assess the nature and seriousness of the injury. In the case of serious or life-threatening injuries, normal decontamination procedures may be abbreviated or bypassed. Less serious injuries such as strains, sprains, minor cuts,

and contusions may only be treated after the employee has been decontaminated. Following decontamination, an IT project team member qualified in first aid and CPR will administer suitable first aid. The PS will then, if necessary, arrange transport to the appropriate medical facility.

12.5 Fire

In the case of a fire on the site, the PS or SHSO will assess the situation and determine the proper response. IT personnel will attempt to extinguish the fire with available extinguishers, only if safe to do so. IT will call the base fire department in the event of a fire that IT is unable to safely and immediately extinguish. The PS will ensure that the Navy is immediately notified of any fires.

12.6 Emergency Information

Prior to the start of the project, contact will be made with local authorities and emergency services to establish communication channel during an event of emergency and to familiarize the project personnel with the communication procedure and services. Pertinent emergency information will be included on the daily tailgate safety meeting forms.

Public Agencies

| | |
|-----------|-----------------------|
| Fire | <u>9-911</u> |
| Ambulance | <u>9-911</u> |
| Police | <u>9-911</u> |
| OSHA | <u>(415) 573-3864</u> |
| Cal/OSHA | <u>(510) 568-8602</u> |

Key Project and IT Personnel

| | |
|---|---|
| Program Manager | Louis E. Stout (510) 372-9100 |
| Program CIH | Mark Freiberg (510) 372-9100, pager (510) 988-5410 |
| Senior Project Engineer/Manager | Valerie Crooks (510) 372-9100 |
| Project Superintendent | Jamie Hargrave (510) 372-9100 |
| Site Health and Safety Officer | Jim Heringer (510) 372-9100, pager |
| Occupational Physician: | |
| David Barnes, M.D. Environmental Medicine Resources, Inc. 4360 Chamblee Dunwoody Road Suite 202 Atlanta, GA 30341 | (404) 455-0818 |
| Medical Incident Reporting: | |
| Environmental Medicine Resources, Inc. | (800) 416-3669 |
| Navy Contact | <u>Wayne Coffey (510) 302-3354</u> |
| Base Health and Safety Office | <u>(510) 263-3395</u> |

Medical Care Facilities

| | |
|-------------------|--------------------------|
| Hospital Name: | <u>Alameda Hospital</u> |
| Hospital Address: | <u>2070 Clinton Ave.</u> |

Hospital Telephone:

(510) 523-4357

Other Important Telephone Numbers

13.0 Summary and Checklist

This project will involve minor excavation work and will be performed in Level D personal protective equipment.

13.1 Summary

13.2 Checklist

- First aid kits (one per vehicle and facility)
- Fire extinguishers (one per vehicle and facility)
- Safety glasses or goggles, ANSI approved
- Hard hats, ANSI approved
- Ear plugs
- Work gloves
- Steel toed work boots, ANSI approved
- Duct tape
- Trash bags
- Portable toilet
- Drinking water and disposable cups
- Complete Health and Safety Plan
- All applicable MSDSs

TABLE 1

HAZARDOUS AND TOXIC MATERIALS

TABLE 1

**HAZARDOUS AND TOXIC MATERIALS
 NAS ALAMEDA PHASE II
 ALAMEDA, CALIFORNIA
 IT Project No. 385012**

| CONTAMINANT (SYNONYM) | PHYSICAL DESCRIPTION | CHEMICAL & PHYSICAL PROPERTIES | INCOMPATIBILITIES | SOURCES & ANTICIPATED CONCENTRATION | TARGET ORGANS | SYMPTOMS OF EXPOSURE |
|--------------------------|--|---|--|---|--|---|
| Lead | Variable, depending on specific compound. | MW: Varies BP: Varies MP: Varies VP: Varies Sol: Varies FP: N/A LEL: N/A UEL: N/A IP: N/A | Strong oxidizers, hydrogen peroxide, active metals (sodium, potassium). | Contaminated soil <1000 ppm | Kidneys, blood, gastro- intestinal tract, CNS. | Pallor, blue gums, lethargy; colic, abdominal pain, constipation; anemia, weight loss. |
| PCBs | Oily liquid. | MW: 326 BP: 700°F MP: 50°F VP: 0.00006 mm Hg Sol: Insol. FP: N/A LEL: N/A UEL: N/A IP: N/A | Strong oxidizers | Contaminated soil <50 ppm | Skin, eyes, liver | Irritation of skin, acne; liver damage, cancer |

TABLE 1

**HAZARDOUS AND TOXIC MATERIALS
NAS ALAMEDA PHASE II
ALAMEDA, CALIFORNIA
IT Project No. 385012
(Continued)**

MW: Molecular weight.
BP: Boiling point at 1 atmosphere pressure, in degrees Fahrenheit (°F).
MP: Melting point in °F.
VP: Vapor pressure at 1 atmosphere pressure and 68°F.
Sol: Solubility in water at 68°F, as percentage (%) by weight.
FP: Flash point, closed cup method, in °F.
LEL: Lower explosive limit in air, as % by volume.
UEL: Upper explosive limit in air, as % by volume.
IP: Ionization potential, in electron-volts (eV).
CNS: Central nervous system.
mm Hg: Millimeters of mercury.
eV: Electron volts.
°F: Degrees Fahrenheit.
%: Percent.
ppm: Parts per million.
mg/m³: Milligrams per cubic meter.
μl: Micrograms per liter.
>: Greater than.
<: Less than.
N/A: Not applicable.

TABLE 2

EXPOSURE GUIDELINES

**EXPOSURE GUIDELINES
NAS ALAMEDA PHASE II
ALAMEDA, CALIFORNIA
IT Project No. 385012**

| CONTAMINANT (SYNONYMS) | OSHA PEL | | ACGIH TLV | | IDLH | WARNING PROPERTIES |
|---------------------------|------------------------|-------------|------------------------|-------------|------|--|
| | 8-HR TWA | 15-MIN STEL | 8-HR TWA | 15-MIN STEL | | |
| Lead | 0.05 mg/m ³ | - | 0.15 mg/m ³ | - | N/A | Odor Thresh: N/A Eye Irr Lvl: Not established |
| PCBs | 0.5 mg/m ³ | - | 0.5 mg/m ³ | - | N/A | Odor Thresh: N/A Eye Irr Lvl: N/A |

- OF: Olfactory fatigue occurs quickly after initial detection of odor.
- OSHA: Occupational Safety and Health Administration.
- PEL: Permissible Exposure Limit.
- ACGIH: American Conference of Government Industrial Hygienists.
- TLV: Threshold Limit Value.
- TWA: Time-weighted average.
- STEL: Short-term exposure limit.
- Hr: Hour.
- Min: Minute.
- f/cc: Fibers per cubic centimeter.
- mg/m³: Milligrams per cubic meter.
- ppm: Parts per million by volume.
- Odor Thresh: Odor threshold.
- Eye Irr Lvl: Eye Irritant level.
- < : Less than.
- > : Greater than.
- ≐ : Approximately.

TABLE 3

PPE SELECTION MATRIX

TABLE 3

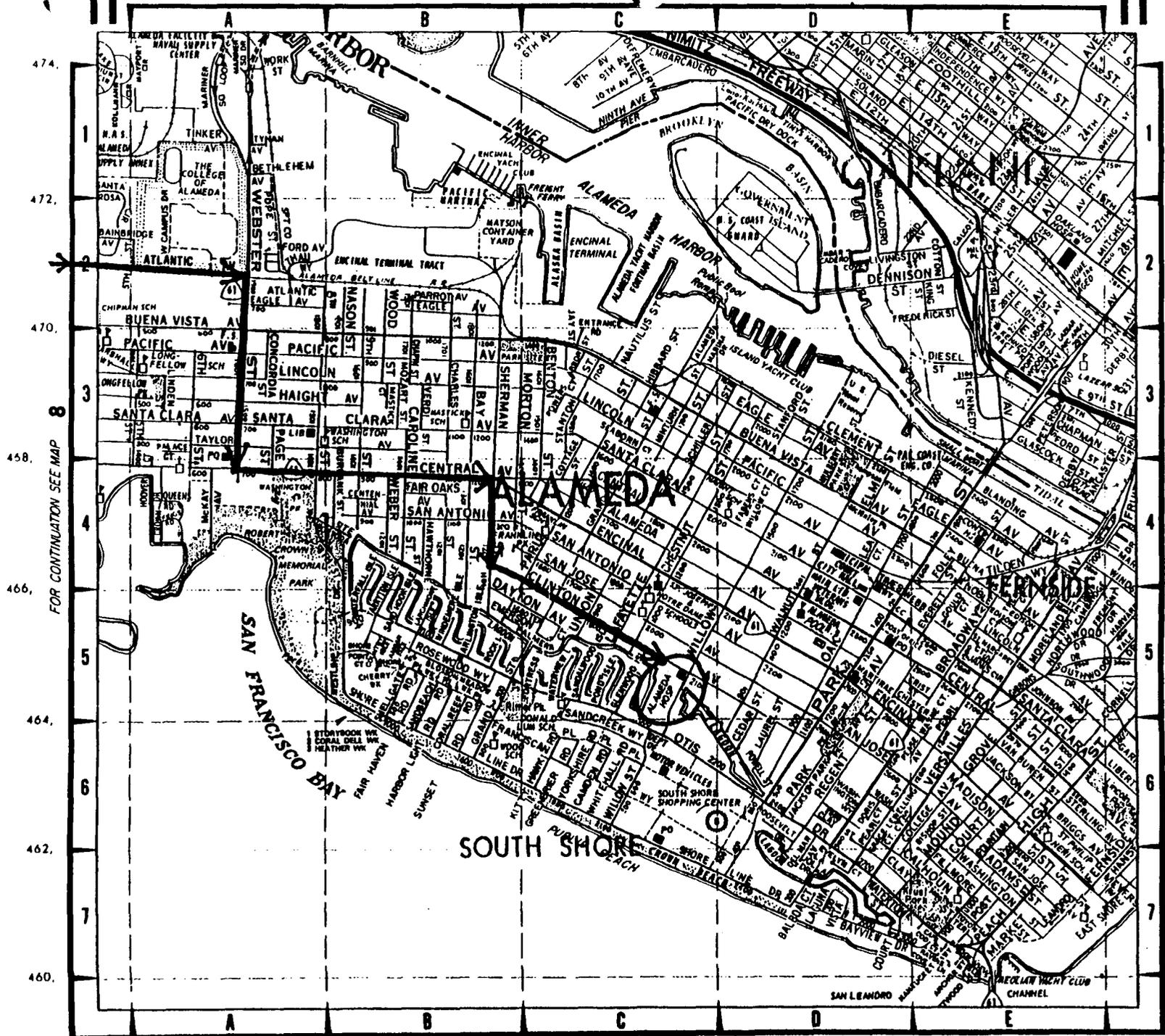
**PPE SELECTION MATRIX
NAS ALAMEDA PHASE II
IT Project No. 385012**

| PPE LEVEL | CONDITIONS |
|-----------|---|
| Level D | All identified contaminant airborne concentrations below the PEL for that contaminant. <ul style="list-style-type: none">• Oxygen concentration less than 25% and greater than 20%.• < 5 ppm VOC above background as determined by PID.• No significant splash or skin contact potential. |
| Level C | Any contaminant airborne concentration above the PEL but below 10 times the PEL for that contaminant. <ul style="list-style-type: none">• Oxygen concentration less than 25% and greater than 20%.• < 50 ppm VOC above background as determined by PID.• All confined space entry with contaminant airborne concentrations below 2 times the PEL.• Low splash or skin contact potential.• Contact the Program CIH. |
| Level B | Contact the Program CIH. |
| Level A | Contact the Program CIH. |
| Stop Work | <ul style="list-style-type: none">• Oxygen content more than 25% or less than 20%• 50 ppm VOC above background as determined by PID. |

Level B protection must be approved by the Program CIH. Level A protection must be approved by the Program CIH, and the IT Corporate Director of Health and Safety.

- PEL = permissible exposure limit.
- VOC = volatile organic compounds.
- PID = photoionization detector.
- ppm = parts per million by volume.
- % = percentage by volume.
- < = less than.

APPENDIX A
SITE AND HOSPITAL LOCATION MAPS



FOR CONTINUATION SEE MAP 8

FOR CONTINUATION SEE MAP 12

APPENDIX B
SUBCONTRACTOR CERTIFICATION

SUBCONTRACTOR CERTIFICATION

I, _____ as an agent of _____,
do hereby certify that the following employees have successfully completed a 40-hour training
course which complies with the provisions of 29 CFR 1910.120, and respiratory protection
training which complies with 29 CFR 1910.134. Each employee has successfully completed a
medical examination which complies with the above regulations.

Individual copies of certification of successful completion of the required training and medical
examinations are attached for each employee.

Signature

Date

APPENDIX C
MATERIAL SAFETY DATA SHEETS

DATE 3/03/86

MATERIAL SAFETY DATA SHEET

PAGE 1

SECTION I - GENERAL INFORMATION

(REORDER PRODUCT BY THIS NO.)

CATALOG NO 44804

PRODUCT NAME KIT PCB-8-20 ISOCTANE

DATA SHEET NO I448140

AROCLOR 1254 (1NG/UL)

FORMULA C8H18

FORMULA WEIGHT 114

CAS 540-84-1 NRTECS SA3320000

SYNONYM ANALYTICAL STANDARD IN ISOCTANE

MANUFACTURER SUPELCO INC. PHONE 814-359-3441

ADDRESS SUPELCO PARK, BELLEFONTE, PA 16823

SECTION II - HAZARDOUS INGREDIENTS OF MIXTURES

MATERIALS - PERCENTAGE - CAS #

(FORMULA) - TLV(UNITS)

LD50 VALUE - CONDITIONS

N/A

SECTION III - PHYSICAL DATA

BOILING POINT 99 C

MM MELTING POINT -116 C

VAPOR PRESSURE 41

C SPECIFIC GRAVITY .690

C (WATER=1)

VAPOR DENSITY 3.90

C (AIR=1) PERCENT VOLATILE BY VOLUME 100

WATER SOLUBILITY N/A

EVAPORATION RATE >1 (ETHER=1)

APPEARANCE COLORLESS LIQUID

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 10 F

CLOSED CUP

FLAMMABLE LIMITS LEL

1.1

UEL

6.0

EXTINGUISHING MEDIA

CO2

FOAM

DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES

WEAR SELF CONTAINED BREATHING APPARATUS WHEN FIGHTING A CHEMICAL FIRE.

UNUSUAL FIRE AND EXPLOSION HAZARDS

CAN REACT VIGOROUSLY WITH REDUCING MATERIALS.

SECTION V - HEALTH HAZARD DATA

LD50 N/A

TLV N/A

EMERGENCY AND FIRST AID PROCEDURES

EYES

FLUSH EYES WITH WATER FOR 15 MINUTES.

SKIN

FLUSH SKIN WITH LARGE VOLUMES OF WATER.

INHALATION

IMMEDIATELY MOVE TO FRESH AIR.

DATE 3/03/86

MATERIAL SAFETY DATA SHEET

PAGE 2

CATALOG NO 44804

(REORDER PRODUCT BY THIS NO.)

PRODUCT NAME KIT PCB-B-20

ISOOCTANE

DATA SHEET NO I448140

AROCLOR 1254 (1NG/UL)

SECTION V - HEALTH HAZARD DATA

* CONTINUED *

GIVE OXYGEN IF BREATHING IS LABORED
IF BREATHING STOPS, GIVE ARTIFICIAL RESPIRATION

INGESTION

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON
NEVER TRY TO MAKE AN UNCONSCIOUS PERSON VOMIT

DO NOT INDUCE VOMITING.

EFFECTS OF OVEREXPOSURE

N/A

SECTION VI - REACTIVITY DATA

STABILITY STABLE.

CONDITIONS TO AVOID

N/A

INCOMPATIBILITY

REDUCING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS

N/A

HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

CONDITIONS TO AVOID

N/A

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

TAKE UP WITH ABSORBENT MATERIAL.
VENTILATE AREA.

WASTE DISPOSAL METHOD

COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR LOCAL REGULATIONS

DATE 3/03/86

MATERIAL SAFETY DATA SHEET

PAGE 3

CATALOG NO 44804

(REORDER PRODUCT BY THIS NO.)

PRODUCT NAME KIT PCB-B-20

ISOOCTANE

DATA SHEET NO I448140

AROCLOR 1254 (1NG/UL)

* CONTINUED *

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFIC TYPE)

WEAR FACE MASK WITH ORGANIC VAPOR CANISTER.

PROTECTIVE GLOVES

WEAR GLOVES.

EYE PROTECTION

WEAR PROTECTIVE GLASSES.

VENTILATION

USE ONLY IN WELL VENTILATED AREA.

SPECIAL

N/A

OTHER PROTECTIVE EQUIPMENT

N/A

SECTION IX - SPECIAL PRECAUTIONS

STORAGE AND HANDLING

STORE IN SEALED CONTAINER IN COOL, DRY LOCATION.

KEEP AWAY FROM HEAT.

STORE IN DRY, WELL VENTILATED AREA.

KEEP AWAY FROM IGNITION SOURCES.

OTHER PRECAUTIONS

AVOID EYE OR SKIN CONTACT.

AVOID BREATHING VAPORS.

WHILE THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF, SUPELCO, INC. MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

LA.. REVISED 11/21/85

HESIS

2151 Berkeley Way
Berkeley, California 94704
Call Collect (415) 540-3014

MEDICAL GUIDELINES



HAZARD EVALUATION SYSTEM AND INFORMATION SERVICE

LEAD

SOURCES:

Occupational exposures to lead fume and dust are the most common sources of poisoning. Many workers are at risk, with major hazards found in smelting, battery manufacture and demolition work. Serious cases are relatively rare today due to better work practices and biologic monitoring.

Children age 1-5 are prone to pica, and ingestion of lead-based paint or plaster found in many older homes may result in poisoning. Other significant exposures have occurred in home owners stripping lead-based paint, in users of lead-glazed pottery and from ingestion of illicitly distilled liquor.

PHARMACOLOGY:

Lead is well absorbed by inhalation; about 10% of an ingested dose is absorbed by the GI tract; skin absorption is negligible except for organic (tetraethyl) lead. Once absorbed, it is initially found in all soft tissue, but eventually 90% of the body burden is bound to bone. In disease states that result in mobilization of calcium from bone (e.g., chronic infections, surgery etc.) lead is also released and has produced acute intoxication long after cessation of exposure. Since lead inhibits many enzyme systems, multiple organ systems are effected. Clinical effects, however, are most prominent in the nervous, hematopoietic, renal, gastrointestinal and reproductive systems. The majority of an absorbed dose is excreted through the kidney. Most poisonings occur as a result of repeated exposures over a period of weeks, months or even years.

CLINICAL PRESENTATION:

Early symptoms are non-specific and involve the nervous system (listlessness, fatigue, irritability, sleep disturbances, headache) and GI system (decreased appetite, nausea, abdominal pain, constipation). Anemia is generally associated with blood lead levels (BLL) above 80 mg%. It may be hypochromic, microcytic (acute, children) or normochromic, normocytic (chronic, adults). Basophilic

stippling is classically seen. Peripheral neuropathy (lead palsy), may occur after chronic exposure, and is characterized predominantly by extensor muscle weakness with minimal sensory loss. Severe abdominal pain ("lead colic") may occur and mimic an acute abdomen. Exposure to organic lead compounds produces a dramatic acute encephalopathy with delirium and hallucinations.

LABORATORY:

The best single diagnostic test is the BLL. Although there is wide variation in individual susceptibility to lead intoxication, there are in general an increasing number and severity of symptoms with increasing BLL. Laboratory variability is great and only CDC certified labs should be used. In general, levels below 30 $\mu\text{g}/100$ ml are considered "normal", although there is considerable geographic variation. Levels below 60 are usually asymptomatic, and levels above 100 are associated with severe effects and usually warrant hospitalization. Erythrocyte protoporphyrin levels (FEP, ZPP) indicate biologic effect on hematopoietic system; they rise with some lag compared to BLL but remain elevated longer.

TREATMENT:

Based on severity of symptoms and BLL:

| <u>BLL</u> | <u>Symptoms</u> | <u>TREATMENT</u> |
|------------|--------------------|--------------------------|
| 30 - 50 | Usually absent | Cessation of exposure |
| 50 - 70 | Mild | Cessation of exposure |
| 70 - 100* | Moderate to severe | EDTA** |
| > 100 | Usually severe | EDTA plus BAL x 5 days** |

*If above 70 and asymptomatic, do EDTA mobilization test; if excretion greater than 1 mcg lead per mg EDTA, give full course chelation.

**Follow-up with oral penicillamine x 1-2 months for adults, 3-6 months for children. BLL should be less than 60 at end of treatment. (There may be transient "rebound" elevations of BLL after cessation of treatment.)

EDTA dose: 12 mg/kg q4h IM x 5 days. May give IV slow drip at concentration no greater than 0.5% (5 mg/ml) (do not give orally). Side effects: Reversible ATN, Zn and B_6 depletion.

BAL dose: 3-5 mg/kg q4h IM x 5 days. Side effects: hypertension, lacrimation, N & V, burning lips.

Penicillamine dose: 100 mg/kg/day (max. 1 gm) p.o. q4h on empty stomach. Side effects: loss of taste, nephrotic syndrome.

This information sheet was prepared by the HESIS medical staff. It is not a definitive summary, but rather a guideline for diagnosis and treatment of lead poisoning, one of the few industrial poisonings for which specific antidotal therapy is available. HESIS physicians are available for free consultation weekdays between 8:00 a.m. and 5:00 p.m. at (415) 540-3014.

APPENDIX D
JOBSITE POSTINGS AND PERMITS

SAFETY AND HEALTH PROTECTION ON THE JOB



State of California
Department of Industrial Relations

California law provides job safety and health protection for workers under the Cal/OSHA program. This poster explains the basic requirements and procedures for compliance with the state's job safety and health laws and regulations. The law requires that this poster be displayed. (Failure to do so could result in a penalty of up to \$7,800.)

WHAT AN EMPLOYER MUST DO:

All employers must provide work and workplaces that are safe and healthful. In other words, as an employer, you must follow state laws governing job safety and health. Failure to do so can result in a threat to the life or health of workers, and substantial monetary penalties.

You must display this poster so everyone on the job can be aware of basic rights and responsibilities.

You must have a written and effective injury and illness prevention program for your employees to follow.

You must be aware of hazards your employees face on the job and keep records showing that each employee has been trained in the hazards unique to each job assignment.

You must correct any hazardous condition that you know may result in serious injury to employees. Failure to do so could result in criminal charges, monetary penalties, and even incarceration.

You must notify the nearest Cal/OSHA office of any serious injury or fatality occurring on the job. Be sure to do this immediately after calling for emergency help to assist the injured employee.

WHAT AN EMPLOYER MUST NEVER DO:

Never permit an employee to do work that violates Cal/OSHA law.

Never permit an employee to be exposed to harmful substances without providing adequate protection.

Never allow an untrained employee to perform hazardous work.

EMPLOYEES HAVE CERTAIN RIGHTS IN WORKPLACE SAFETY & HEALTH:

As an employee, you (or someone acting for you) have the right to file a complaint and request an inspection of your workplace if conditions there are unsafe or unhealthful. This is done by contacting the local district office of the Division of Occupational Safety and Health (see list of offices). Your name is not revealed by Cal/OSHA, unless you request otherwise.

You also have the right to bring unsafe or unhealthful conditions to the attention of the Cal/OSHA investigator making an inspection of your workplace. Upon request, Cal/OSHA will withhold the names of employees who submit or make statements during an inspection or investigation.

Any employee has the right to refuse to perform work that would violate a Cal/OSHA or any occupational safety or health standard or order where such violation would create a real and apparent hazard to the employee or other employees.

You may not be fired or punished in any way for filing a complaint about unsafe or unhealthful working conditions, or using any other right given to you by Cal/OSHA law. If you feel that you have been fired or punished for exercising your rights, you may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement (State Labor Commissioner) or the San Francisco office of the U.S. Department of Labor, Occupational Safety and Health Administration. (Employees of state or local government agencies may only file these complaints with the State Labor Commissioner.) Consult your local telephone directory for the office nearest you.

EMPLOYEES ALSO HAVE RESPONSIBILITIES:

To keep the workplace and your co-workers safe, you should tell your employer about any hazard that could result in an injury or illness to people on the job.

While working, you must always obey state job safety and health laws.

HELP IS AVAILABLE:

To learn more about job safety rules you may contact the Cal/OSHA Consultation Service for free information, required forms and publications. You can also contact a local district office of the Division of Occupational Safety and Health. If you prefer, you may retain a competent private consultant, or ask your workers' compensation insurance carrier for guidance in obtaining information.

SPECIAL RULES APPLY IN WORK AROUND HAZARDOUS SUBSTANCES:

Employers who use any substance listed as a hazardous substance in Section 330 of Title 8 of the California Code of Regulations, or subject to the Federal Hazard Communications Standard (20 CFR 1910.1200), must provide employees with information on the contents of Material Safety Data Sheets (MSDS), or equivalent information about the substance that trains employees to use the substance safely.

Employers shall make available on a timely and reasonable basis a Material Safety Data Sheet on each hazardous substance in the workplace upon request of an employee, an employee collective bargaining representative, or an employee's physician.

Employees have the right to see and copy their medical records and records of exposure to potentially toxic materials or harmful physical agents.

Employers must allow access by employees or their representatives to accurate records of employee exposures to potentially toxic materials or harmful physical agents, and notify employees of any exposures in concentration or levels exceeding the exposure limits allowed by Cal/OSHA standards.

Any employee has the right to observe monitoring or measuring of employee exposure to hazards conducted pursuant to Cal/OSHA regulations.

WHEN CAL/OSHA COMES TO THE WORKPLACE:

A trained Cal/OSHA safety engineer or industrial hygienist may periodically visit the workplace to make sure your company is obeying job safety and health laws.

An inspection will also be conducted when a legitimate complaint is filed by an employee with the Division of Occupational Safety and Health.

Cal/OSHA also goes to the workplace to investigate a serious injury or fatality.

When an inspection begins, the Cal/OSHA investigator will show official identification from the Division of Occupational Safety and Health.

The employer, or someone the employer chooses, will be given an opportunity to accompany the investigator during the inspection. A representative of the employees will be given the same opportunity. Where there is no authorized employee representative, the investigator will talk to a reasonable number of employees about safety and health conditions at the workplace.

VIOLATIONS, CITATIONS & PENALTIES:

If the investigation shows that the employer has violated a safety and health standard or order, then the Division of Occupational Safety and Health issues a citation. Each citation specifies a date by which the violation must be abated. A notice, which carries no monetary penalty, may be issued in lieu of a citation for certain non-serious violations.

Citations carry penalties of up to \$7,000 for each regulatory, general or serious violation. Additional penalties of up to \$7,000 per day may be proposed for each failure to correct a violation by the abatement date shown on the citation. A penalty of not less than \$5,000 nor more than \$70,000 may be assessed an employer who willfully violates any occupational safety and health standard or order. The maximum civil penalty that can be assessed for each repeat violation is \$70,000. A willful violation that causes death or permanent impairment of the body of any employee results, upon conviction, in a fine of not more than \$70,000, or imprisonment of not more than six months, or both.

While governmental entities may be cited on the same basis as other employers, and assessment dates set, civil penalties will not be assessed.

The law provides that employers may appeal citations within 15 working days of receipt to the Occupational Safety and Health Appeals Board.

An employer who receives a citation, Order to Take Special Action, or Special Order must post it prominently at or near the place of the violation for three working days, or until the unsafe condition is corrected, whichever is longer, to warn employees of danger that may exist there. Any employee may protest the time allowed for correction of the violation to the Division of Occupational Safety and Health or the Occupational Safety and Health Appeals Board.

OFFICES OF THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

HEADQUARTERS: 455 Golden Gate Ave.—Room 5202, San Francisco CA 94102 — Telephone (415) 703-4341

District & Field Offices

| | | | | | |
|----------------|---|----------------|-------------------------|--|----------------|
| Anaheim | 2100 East Katella Ave.—Room 140, 92806 | (714) 939-0145 | Torrance | 680 Knox St.—Suite 100, 90502 | (310) 516-3734 |
| Bakersfield | 4800 Stockdale Highway—Suite 212, 93309 | (805) 395-2718 | Utah | 620 Kings Court—Suite 5, 95482 | (707) 463-4783 |
| Chico | 555 Rio Lindo—Suite A, 95925 | (916) 895-4761 | Van Nuys | 6130 Van Nuys Blvd.—Suite 405, 91401 | (818) 801-6403 |
| Concord | 1485 Erma Circle—Bldg. E Suite 900, 94520 | (510) 676-5333 | Ventura | 1655 Mesa Verde—Room 150, 93003 | (805) 654-4581 |
| Covina | 1123 South Parkview—Suite 100, 91724 | (618) 985-1186 | | | |
| Eureka | 619 Second St.—Room 100, 95501 | (707) 446-8611 | Regional Offices | | |
| Fresno | 2550 Mariposa St.—Room 4000, 93721 | (209) 445-5302 | Anaheim | 2100 East Katella Ave.—Room 125, 92806 | (714) 939-8611 |
| Los Angeles | 3550 West Sixth St.—Room 431, 90020 | (213) 736-3041 | Los Angeles | 3550 West Sixth St.—Suite 413, 90020 | (213) 736-4811 |
| Modesto | 1209 Woodrow Ave.—Suite C-4, 95350 | (209) 576-6280 | Sacramento | 2424 Arden Way—Suite 125, 95825 | (916) 820-6127 |
| Oakland | 7700 Edgewater Dr.—Suite 125, 94621 | (510) 588-8802 | San Francisco | 1360 Market St.—Suite 622, 94102 | (415) 557-8640 |
| Pico Rivera | 9455 East Blauson Ave., 90680 | (310) 949-7627 | | | |
| Redding | 381 Hemsted Dr., 96002 | (916) 224-4743 | | | |
| Sacramento | 2424 Arden Way—Suite 165, 95825 | (916) 820-6123 | | | |
| Sakine | 1164 Monroe St.—Suite 1, 93906 | (408) 443-3050 | | | |
| San Bernardino | 242 East Airport Dr.—Suite 103, 92408 | (714) 383-4321 | | | |
| San Diego | 7807 Convoy Court—Suite 140, 92111 | (619) 237-7325 | | | |
| San Francisco | 1390 Market St.—Suite 718, 94102 | (415) 557-1677 | | | |
| San Jose | 2010 North First St.—Suite 401, 95131 | (408) 462-7288 | | | |
| San Mateo | 1900 South Norfolk St.—Suite 215, 94403 | (415) 573-3812 | | | |
| Santa Rosa | 1221 Farmers Lane—Suite 300, 95405 | (707) 576-2388 | | | |

CAL/OSHA CONSULTATION SERVICE

Headquarters:
455 Golden Gate Ave.—Room 5246, San Francisco CA 94102 — (415) 703-4080

| | | |
|----------------------|--|----------------|
| Area Offices: | | |
| Fresno | 1901 North Gateway—Suite 102, 93727-1805 | (209) 454-1285 |
| Sacramento | 2424 Arden Way—Suite 410, 95825 | (916) 820-6131 |
| San Diego | 7827 Convoy Court—Suite 406, 92111 | (619) 279-3771 |
| San Mateo | 3 Waters Park Dr.—Suite 230, 94403 | (415) 573-3884 |
| Santa Fe Springs | 10350 Heritage Park Dr.—Suite 201, 90670 | (310) 944-8386 |

Enforcement of Cal/OSHA job safety and health standards is carried out by the Division of Occupational Safety and Health, under the California Department of Industrial Relations, which has primary responsibility for administering the Cal/OSHA program. Safety and health standards are promulgated by the Occupational Safety and Health Standards Board. Anyone desiring to register a complaint alleging inadequacy in the administration of the California Occupational Safety and Health Plan may do so by contacting the San Francisco Regional Office of the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor (Tel: 415/744-6670). OSHA monitors the operation of state plans to ensure that continued approval is merited.

Proposition 65 Warning and Notification

As required under the Safe Drinking Water and Toxic Enforcement Act of 1986 (also known as Proposition 65), on February 27, 1987, the Governor published a listing of those chemicals determined by the State of California to cause cancer, birth defects, or other reproductive harm. Proposition 65 requires that businesses that handle any of the listed chemicals notify people in the affected area of that fact. IT Corporation handles some of the listed chemicals at the NAS Alameda Phase 1 Project in Alameda California.

The chemicals present on site that have been determined to cause cancer include:

- PCBs

The following contaminants on site have been determined by the State to cause reproductive harm:

- Lead

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

No - 557808

12036

PERMIT

Permit Issued To
(Insert Employer's Name, Address and Telephone No.)

I T Corporation
2355 Main Street Ste. 100
Irvine, CA
(714) 660-5363

No. _____

Date 12/23/93

Region 3

District 5

Tel. (310) 516-3734

Type of Permit ANNUAL TRENCH/EXCAVATION

Pursuant to Labor Code Sections 6500 and 6502, this Permit is issued to the above-named employer for the projects described below.

| State Contractor's License Number 137422 | | Permit Valid through December 31, 1994 | | |
|---|------------------|--|-------------------|------------|
| Description of Project | Location Address | City and County | Anticipated Dates | |
| | | | Starting | Completion |
| Trench/Excavation | Various | Statewide | 1/1/94 | 12/31/94 |
| <p>"THE IIP PROGRAM SUBMITTED FOR THIS PERMIT IS ACCEPTED BY DOSH FOR PERMIT PURPOSES ONLY. ALTHOUGH IT ADDRESSES THE PRIMARY POINTS REQUIRED, FAILURE TO IMPLEMENT IT OR ASSURE ITS EFFECTIVENESS, MAY RESULT IN A CITATION." THE APPROPRIATE DISTRICT OFFICE SHALL BE NOTIFIED IN WRITING OF LOCATION OF JOB SITE PRIOR TO COMMENCEMENT.</p> | | | | |

This Permit is issued upon the following conditions:

1. That the work is performed by the same employer. If this is an annual permit the appropriate District Office shall be notified, in writing, of dates and location of job site prior to commencement.
2. That employer will comply with all occupational safety and health standards or orders applicable to the above projects, and any other lawful orders of the Division.
3. That if any unforeseen condition causes deviation from the plans or statements contained in the Permit Application Form the employer will notify the Division immediately.
4. Any variation from the specification and assertions of the Permit Application Form or violation of safety orders may be cause to revoke the permit.
5. This permit shall be posted at or near each place of employment as provided in 8 CAC 341.4.

B of A 10341/16-66/1220

| | |
|---|--------------------------------|
| Received from IT Corp | Received By J. Jones |
| <input type="checkbox"/> Cash | Amount \$100.00 |
| <input checked="" type="checkbox"/> Check | Date 12/23/93 |

Investigated by *[Signature]* 12-23-93
 Safety Insp. *[Signature]* Date 12-23-93

STATE OF CALIFORNIA

George Deukmejian, Governor

DEPARTMENT OF INDUSTRIAL RELATIONS

DIVISION OF OCCUPATIONAL SAFETY AND
HEALTH ADMINISTRATION525 GOLDEN GATE AVENUE
SAN FRANCISCOADDRESS REPLY TO
P.O. BOX 803
SAN FRANCISCO, CALIF 94101

CARCINOGEN REGISTRATION FORM

Dear Sir:

This letter may serve as a registration for carcinogen use in accordance with Title 8, California Administrative Code, Sections (as listed below), indicating use of the following carcinogen(s). Check the substances that are used in your workplace, or potentially could be handled in an IT workplace.

5208 Asbestos5209 2 - acetylaminofluorene 4 - aminodiphenyl Benzidine and its salts Bis (chloromethyl) ether 3, 3' - dichlorobenzidine and its salts 4 - dimethylaminoazobenzene Beta - naphthylamine N-nitrosodimethylamine Beta-propiolactone Methyl chloromethyl ether Alpha-naphthylamine Ethyleneimine 4 - Nitrobiphenyl5210 Vinyl chloride5211 Coke oven emissions5212 1, 2 - dibromo - 3 - chloropropane DBCP5213 Acrylonitrile5214 Inorganic arsenic5215 4, 4' - Methylene bis (2 Chloroaniline) MBOCA5219 Ethylene dibromide (EDB)5220 Ethylene Oxide (EtO) Other: _____

Continued on reverse side.

1. Give a brief description of the way(s) in which the carcinogen or carcinogen containing product(s) are processed, handled, used, or transported.
See attached.
2. Give the in-plant location(s) where carcinogen(s) are used.
3. Give the address of each area where carcinogen(s) are used if different from address given below.
Refer to letter.
4. Other identifying information of each carcinogen in use or present, such as trade names or synonyms, if known.
Refer to letter.
5. The number of employees in areas where carcinogens are used or present during any operation including maintenance activities.
See Attachment 2.
6. The total number of employees including office personnel at this establishment.
Refer to letter.
7. The manner in which a carcinogen is present in a place of employment; e.g., whether it is manufactured, processed, used, repackaged, released, stored, or otherwise handled.
Refer to letter.
8. The name and address of the union bargaining representative(s), if any, of the employees who may be exposed to the carcinogens.
Refer to letter.
9. Nature of business. Indicate the industry and the principal product(s), line of trade, service or other activity. (Examples: General Contractors, Single Family Houses; Chemical Manufacturing, Paints and Varnishes; etc.)
Refer to letter.
10. For any of the carcinogens listed under Sections 5209, 5210, 5212, 5213, 5214, 5215, 5219 and 5220 (see front page) include the quantity of the carcinogen used (or the quantity of the product for which the content of the carcinogen is unknown) and an estimate of the frequency of employee exposure.
Refer to letter.

Please type or print:

David R. Smith; Corp. Dir.; Health Safety & Training 11/5/85
Name and Title of Registrant (Please Print) Date

for II Corporation Check if operations involve temporary jobsites.
Company

23456 Hawthorne Blvd., #220, Torrance, CA 90505
Address Zip Code

David R. Smith (213) 378-9933
Signature Telephone Number

This registration or any change in the registration information shall be reported in writing within 15 (10 for EDB) calendar days of such changes to: Chief, Division of Occupational Safety and Health, 525 Golden Gate Avenue, Third Floor, San Francisco, CA 94102, as referenced in the Title 8, California Administrative Code Sections cited above.

(POST A COPY OF THIS REPORT IN A CONSPICUOUS PLACE WHERE CARCINOGEN IS USED. SEE SEC. 24231 OF THE HEALTH AND SAFETY CODE.)

NOTICE

ON THE JOB INJURIES

Report all injuries immediately to your foreman or supervisor.

Authorization for medical treatment must be obtained from your employer.

**CRAWFORD & COMPANY
P.O. Box 935
San Leandro, CA 94577**

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF LABOR STANDARDS ENFORCEMENT

PAY DAY NOTICE

(IT CORPORATION)

REGULAR PAY DAYS FOR EMPLOYEES OF International Technology
(FIRM NAME)

Corporation

SHALL BE AS FOLLOWS:

- Salaried Employees Bi-weekly
- Hourly Employees Weekly

THIS IS IN ACCORDANCE WITH SECTIONS 204, 204A, 204B, AND 205
OF THE CALIFORNIA LABOR CODE.

BY C. L. Perrignon

TITLE Human Resources

C. L. PERRIGNON
MANAGER, HUMAN RESOURCES

DLSE 8 (REV. 12-88)
0 00P



PLEASE POST



IT CORPORATION

NOTICE

YOU HAVE THE RIGHT TO REVIEW:

- RECORDS OF WORKPLACE TESTS FOR TOXIC SUBSTANCES OR HARMFUL PHYSICAL AGENTS
- YOUR MEDICAL RECORDS
- MATERIAL SAFETY DATA SHEETS OR OTHER INFORMATION THAT EXISTS FOR CHEMICALS OR SUBSTANCES USED IN YOUR WORK
- OSHA HEALTH & SAFETY REGULATIONS

**THIS INFORMATION IS AVAILABLE
THROUGH YOUR REGIONAL HEALTH
AND SAFETY OFFICE.**

CONTACT

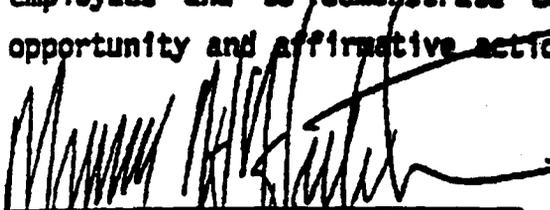
Health & Safety Department
(510) 372-9100

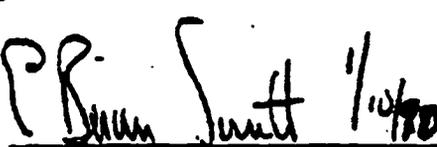
EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION POLICY STATEMENT

We hereby pledge our full support to IT Corporation's Affirmative Action Program and policy of nondiscrimination and equal opportunity, in compliance with Executive Order 11246, as amended. IT Corporation will recruit, hire, train and promote persons in all job titles without regard to race, creed, color, religion, age, marital status, sexual orientation, disability or national origin, except where sex is a bona-fide occupational qualification. We will insure that hiring and promotion decisions are in accord with equal employment opportunity principles by imposing only requirements which are job-related and do not have an adverse impact, and that other employment decisions further the principle of equal employment opportunity. IT Corporation will insure that all personnel actions such as compensation, benefits, Company sponsored training, education, tuition assistance, transfer, demotion, termination, layoff, return from layoff, and social and recreation programs will be administered without regard to race, creed, color, religion, age, sex, marital status, sexual orientation, disability or national origin.

Equal opportunity can only be achieved through demonstrated leadership and aggressive implementation of a viable Affirmative Action Program. Our Affirmative Action Program sets forth specific affirmative action and equal employment opportunity responsibilities of managers, supervisors, and all employees. It is incumbent that employees not discriminate in any policy, practice or procedure on the basis of race, creed, color, religion, age, sex, marital status, sexual orientation, disability or national origin.

All employees are expected to make every reasonable effort to carry out their Affirmative Action Program responsibilities in spirit as well as in letter to assure that equal opportunity is available to all. We further expect all employees to demonstrate sensitivity to and respect for all other employees and to demonstrate commitment to the Company's equal employment opportunity and affirmative action objectives.

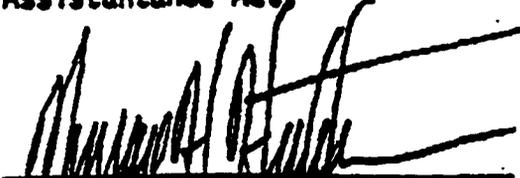

Murray H. Hutchinson
Chairperson of the Board

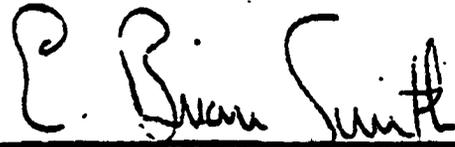

E. Brian Smith
President

IT CORPORATION POLICY STATEMENT

IT Corporation complies with Section 503 of the Rehabilitation Act of 1973, which requires affirmative action to employ and advance in employment qualified handicapped individuals. IT Corporation also complies with Section 402 of the Vietnam Era Veterans Readjustment Assistance Act of 1974, which requires affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam Era. If you have a handicap, or are a disabled veteran covered by this Program, and would like to be considered under our Affirmative Action Program, please tell us. Submission of this information is voluntary and your refusal to provide it will not cause you to be subjected to discharge or other disciplinary treatment. Information obtained concerning your handicap or status as a disabled veteran will be kept confidential, except that: (i) supervisors and managers may be informed regarding necessary restrictions on your work or duties as a result of your handicap or disabled status, and regarding necessary accommodations; (ii) first aid personnel may be informed, when and to the extent appropriate, if your condition might require emergency treatment; and (iii) government officials investigating compliance with either of the above-mentioned Acts shall be informed. If you are a disabled veteran or are otherwise handicapped, we would like to include you under our Affirmative Action Program. It would assist us if you would tell us about (1) any special methods, skills and procedures which qualify you for positions which you might otherwise not be able to do because of your handicap or disability, and (2) any accommodations that we could make to enable you to perform any job properly and safely, including special equipment, changes in the physical lay out of the job, elimination of certain duties relating to the job, or other accommodations. Any employee or applicant upon request may review our Affirmative Action Program during business hours in the Human Resources Department.

If you are a handicapped person, disabled veteran, or veteran of the Vietnam Era, you should know that, whether an employee or applicant for employment, you are protected from coercion, intimidation, interference, or discrimination for filing any complaint or assisting in any investigation under the Rehabilitation Act of 1973 or the Vietnam Era Veterans Readjustment and Assistance Act.


Murray R. Hutchison
Chairperson of the Board


E. Brian Smith
President



Serving the People of California

NOTICE TO EMPLOYEES

THIS EMPLOYER IS REGISTERED UNDER THE CALIFORNIA UNEMPLOYMENT INSURANCE CODE, AND IS REPORTING WAGE CREDITS THAT ARE BEING ACCUMULATED FOR YOU TO BE USED AS A BASIS FOR

UNEMPLOYMENT INSURANCE

(Paid for entirely by EMPLOYERS' taxes)

and

DISABILITY INSURANCE

(Paid for entirely by WAGE EARNERS' taxes)

- **WHEN YOU ARE UNEMPLOYED AND READY, WILLING AND ABLE TO WORK, YOU MAY BE ELIGIBLE TO RECEIVE UNEMPLOYMENT INSURANCE.**

You must file a claim for Unemployment Insurance at the nearest Employment Development Department Office, and register for work.

- **IF YOU WORK LESS THAN YOUR NORMAL FULL-TIME HOURS, YOU MAY ALSO BE ELIGIBLE TO RECEIVE BENEFITS.**

You must file a claim for Unemployment Insurance at the nearest Employment Development Department Office.

- **WHEN YOU ARE UNABLE TO WORK BECAUSE OF SICKNESS OR INJURY, YOU MAY BE ELIGIBLE TO RECEIVE DISABILITY INSURANCE BENEFITS.**

1. If this firm operates under an approved Voluntary Plan of Disability Insurance and you have chosen to be covered by it, claim forms should be obtained from your employer.

2. For State Disability Insurance, claim forms may be obtained from your doctor, hospital, or any Employment Development Department Office. The "First Claim" must be mailed not later than the 41st day after the first day for which benefits are payable if you are to receive credit from the time you first became disabled. Earlier filing will speed your payment.

- **GET FULL INFORMATION AT YOUR LOCAL EMPLOYMENT DEVELOPMENT DEPARTMENT OFFICE.**

CLAIMS SHOULD BE FILED PROMPTLY. YOU MAY LOSE BENEFITS TO WHICH YOU WOULD OTHERWISE BE ENTITLED IF YOU DELAY FILING OF YOUR CLAIM.

Employment Development Department

DE 1857A Rev. 27 (1-86)

EMERGENCY

AMBULANCE

9-911

FIRE - RESCUE

9-911

HOSPITAL

9-523-4357

PHYSICIAN



ALTERNATE

POLICE

9-911

CAL/OSHA

9-(415)573-3864

[POSTING IS REQUIRED BY TITLE 8 SECTION 1512(e)]



STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
P.O. Box 808, San Francisco CA 94142-0603
420603



If A Work Injury Occurs...

... you're automatically protected by workers' compensation insurance. California law provides certain benefits to employees who are injured or become ill because of the job.

Workers' Compensation Benefits Include...

- **Medical Care.** All medical treatment required to cure the injury or illness—without deductible or dollar limit. You should never see a bill, since all costs are paid directly by your employer's insurance company.
Your employer will arrange for medical care, usually by a specialist for the particular injury. If you want to change doctors, please ask your supervisor. (In addition, 30 days after reporting the injury you can be treated by a doctor of your choice. Or you can be treated by your own personal physician if you've notified your employer in writing before the injury. For further information, please contact your supervisor.)
- **Rehabilitation.** If the injury or illness prevents returning to your usual job, you may be eligible for vocational rehabilitation. If so, all costs are paid by your employer's insurance company.
- **Payment for Lost Wages.** Employees disabled by job injuries or illnesses receive tax-free income while unable to work. The payments are two-thirds of your average weekly pay, up to a maximum set by State law. (Payments are not made for the first three days, however, unless you're hospitalized or unable to work more than 21 days.)
Additional payments also will be made after recovery if the injury or illness results in a permanent handicap. If the injury or illness results in death, benefits will be paid to surviving dependents.

In The Event Of A Work Injury...

1. Be sure first aid is given.
2. See that the injured employee is taken to a doctor or hospital, if necessary.
3. Report every injury IMMEDIATELY to your supervisor. Any delay in reporting an accident may delay workers' compensation benefits.
4. If you have any questions about workers' compensation, please see your supervisor.

Emergency Telephone Numbers

| | | | |
|-----------|--------------------------------------|--------|-----|
| Doctor | 523-4357 | Police | 911 |
| Hospital | Alameda Hospital 2070 Clinton St. | Fire | 911 |
| Ambulance | 911 | | |

Workers' Compensation Is Provided By

**NATIONAL UNION FIRE INSURANCE COMPANY
OF PITTSBURGH, PENNSYLVANIA**
3699 Wilshire Boulevard
Los Angeles, California 90010
(213) 480-3400

APPENDIX E
SITE SAFETY AND HEALTH PLAN ADDENDA

**APPENDIX E – SITE SAFETY AND HEALTH PLAN
ADDENDA**

**SITE HEALTH AND SAFETY PLAN
SITE 15, PHASE II WORK**

**THE ABOVE IDENTIFIED APPENDIX IS NOT
AVAILABLE.**

**EXTENSIVE RESEARCH WAS PERFORMED BY
SOUTHWEST DIVISION TO LOCATE THIS
APPENDIX. THIS PAGE HAS BEEN INSERTED AS
A PLACEHOLDER AND WILL BE REPLACED
SHOULD THE MISSING ITEM BE LOCATED.**

QUESTIONS MAY BE DIRECTED TO:

**DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND
SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132**

TELEPHONE: (619) 532-3676