HEALTH AND SAFETY PLAN

Former Jarl Extrusion Site
Pittsford, New York
#8-28-005

Prepared for:
O'Brien & Gere Technical Services

March 2000

INTRUSIVE ACTIVITIES: Intrusive activities within O'Brien & Gere's scope of work are those that have the potential to cause health and safety concerns to site workers, the public, or the environment. These activities and any non-intrusive activities conducted in an Exclusion Zone require training per 29CFR1926.65.

1.1 Covered Personnel

This HASP is specifically intended for O'Brien & Gere personnel, subcontractors, and visitors who will be conducting activities within the defined scope of work in specified areas of the site. O'Brien & Gere will inform site personnel, subcontractors, and visitors of potential safety and health hazards and the contents of this HASP. The above persons are responsible for complying with regulations, client policies, and this HASP applicable to the work that they are performing. This HASP may be provided to interested parties for informational purposes, however, the HASP is specifically intended for the conduct of activities within the scope of work for O'Brien & Gere.

1.2 HASP Review and Modification

Future actions that may be conducted at this site and unexpected conditions that may be encountered may necessitate the modification of the requirements of this HASP. The SSHC will recommend modifications to this HASP, and the O'Brien & Gere Project Coordinator and the Corporate Safety Coordinator will have responsibility for approving them. Modifications to this HASP shall be outlined on the *Revision Summary* page.

1.3 Site Description

The project is located at the former Jarl Extrusion Site at 860 Linden Avenue. Town of Pittsford, Monroe County, New York. The was previously owned by Alcan Aluminum Corporation (Alcan) and registered as #8-28-005 on the NYS Inactive Hazardous Waste Site list. The site is presently owned by Mr. John Sebastian who operates a used car parts

facility. The site is bordered on the south of Linden Avenue and a railroad yard. Light industrial facilities are located to the west. J.C. Plastics Co. is located on the southwestern corner of the property. Steeply graded wooded lots with a tributary of Irondequoit Creek are located to the north, and the Sigismondi Landfill borders the site to the east.

1.4 Scope of Work

The scope of work for the contract includes approximately 6,000 cubic yards of earthwork/grading and installation of an asphalt cover existing impundment materials. The cover is comprised of 6 inches of stone subbase and 3 inches asphalt binder and surface wearing course. An underground cistern shall also be removed, crushed and placed within the limits of the cover. This site-specific HASP addresses the following activities:

- Mobilization/Demobilization (non-intrusive)
- Clearing & Grubbing (non-intrusive)
- Removal & Demolition of cistern (intrusive and non-intrusive)
- Grading & Paving (non-intrusive)
- Decontamination (intrusive)

1.5 Project Personnel

Project Manager:	Robert Cheesman
Project/Site Supervisor:	Robert Cheesman
Corporate Safety Coordinator (CSC):	Jeffrey R. Parsons, CIH
Corporate Health & Safety Specialist:(HSS):	John Tophoven
Site Safety and Health Coordinator (SSHC):	[SSHC]

1.6 Responsibilities

As directed in this HASP, safety-related information will generally be addressed first by the SSHC. Unresolved safety concerns or accident / emergency reports will immediately be forwarded to the Project Manager for review and resolution. The O'Brien & Gere CSC should be consulted as necessary. In addition, the SSHC will maintain a daily *Health and Safety Log*, that may be periodically reviewed by Corporate Health & Safety (CHS).

1.6.1 The **Project Manager** is responsible for providing upper level management support for health and safety. He will provide sufficient authority and resources to the Project Supervisor to satisfy health and safety requirements. The Project Manager is ultimately responsible for ensuring field implementation of this HASP. This includes consultation with the Project Supervisor and the O'Brien & Gere Corporate Safety Coordinator.

1.6.2 The **Project/Site Supervisor** is responsible for overall project management and coordination of daily activities. The Project/Site Supervisors will coordinate all site activities with field personnel, subcontractors, equipment and materials suppliers, the engineer, and owner. The Project/Site Supervisor oversees daily activities of the project and is, therefore, responsible for implementing health and safety requirements and following safety procedures in the field. The Project/Site Supervisor is also responsible for conducting periodic safety inspections independent of the SSHC and CSC and correcting observed deficiencies on this site. The Project/Site Supervisor will contact the local emergency response organizations as required, and notify concerned affiliates of the hazards associated with this project.

1.6.3 The O'Brien & Gere **Corporate Safety Coordinator** (CSC) will make recommendations regarding the work area to the SSHC. Inspections will periodically be conducted to monitor worker health and safety and will address issues such as appropriate personal protective equipment (PPE), required air monitoring, decontamination procedures, and construction safety. The O'Brien &

Gere CSC will approve modifications to this HASP.

1.6.4 The O'Brien & Gere **Corporate Health & Safety Specialist** (HSS) will assist the O'Brien & Gere CSC in implementation of the Corporate Health & Safety program including: industrial hygiene and safety inspections, industrial hygiene monitoring, overall risk management of the sites specific health and safety needs and consultation with project personnel regarding implementation of the O'Brien & Gere Corporate Health & Safety program.

1.6.5 The **Site Safety and Health Coordinator (SSHC)** advises the Project Manager and or Project/Site Supervisor on matters of health and safety on the site. The SSHC has the authority to stop work if any operation threatens worker or public / environmental health or safety. In general, the responsibilities of the SSHC include, but are not limited to, the following:

A. Selection and inspection of PPE;
B. Monitoring workers for signs of heat stress, cold stress, and fatigue;
C. Conducting periodic surveillance to evaluate effectiveness of the HASP;
D. Monitoring on-site hazards and conditions and recommending modifications to the HASP when new hazards are observed;
E. Informing the Project/Site Supervisor of observed safety deficiencies requiring corrective action;
F. Having knowledge of emergency procedures, evacuation routes, and telephone numbers for emergency services;
G. Posting directions to the hospital and telephone numbers for emergency services;
H. Coordinating emergency medical care as necessary;
I. Conducting and documenting safety walkthroughs daily and safety audits at least every other week;
J. Ensuring that the daily *Health and Safety Log* is available for review

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This Health & Safety Plan has been developed in accordance with applicable regulations and O'Brien & Gere corporate safety requirements.

Jeffrey R. Parsons, CIH
Manager of Corporate Health & Safety

3/28/00
Date

REVISION SUMMARY

REVISION DATE	DESCRIPTION OF CHANGES	REASON FOR CHANGE
[March 2000]	Not Applicable (Original Health and Safety Plan) File Location: I:\TECH\PROJECTS\PITTS\HASP.WPD	Not Applicable

TABLE OF CONTENTS

FIGURES

ATTACHMENTS

SECTION 1 - INTRODUCTION

1. General

This Health and Safety Plan (HASP) has been developed to provide the requirements and general procedures to be met by O'Brien & Gere , Inc. (O'Brien & Gere) personnel, while performing work related to the Former Jarl Extrusion Site , Site # 8-28-005 project. This HASP describes the responsibilities, training requirements, protective equipment, and safety procedures necessary for protection of on-site workers and O'Brien & Gere visitors from exposure to contaminant levels which are greater than published limits. This plan specifies procedures and equipment to be utilized to minimize hazardous material exposures to site personnel as well as measures to be used for decontamination of equipment. This HASP incorporates, by reference, the applicable Occupational Safety and Health Administration (OSHA) requirements in 29CFR1910 and 29CFR1926.

The requirements and guidelines in this HASP are based on a review of available information and an evaluation of potential on-site hazards. This HASP will be discussed with site personnel and will be available on-site for review while work is underway. O'Brien & Gere personnel, subcontractors, and visitors will report to the O'Brien & Gere Site Safety and Health Coordinator (SSHC) in matters of health and safety. While the SSHC is responsible for ensuring compliance with this HASP and stopping work when necessary, the Project Supervisor is responsible for implementation of this HASP into daily site activities.

NON-INTRUSIVE ACTIVITIES: Non-intrusive activities within O'Brien & Gere's Scope of work are those that do NOT have the potential to jeopardize the health and safety of site workers, the public, or the environment with respect to site contaminants. Hazardous waste operations training per 29CFR1926.65 is NOT required. However, all other applicable health and safety regulations, O'Brien & Gere Technical Servivces policy,and HASP requirements must be followed.

INTRUSIVE ACTIVITIES: Intrusive activities within O'Brien & Gere's scope of work are those that have the potential to cause health and safety concerns to site workers, the public, or the environment. These activities and any non-intrusive activities conducted in an Exclusion Zone require training per 29CFR1926.65.

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1.6.2 The **Project/Site Supervisor** is responsible for overall project management and coordination of daily activities. The Project/Site Supervisors will coordinate all site activities with field personnel, subcontractors, equipment and materials suppliers, the engineer, and owner. The Project/Site Supervisor oversees daily activities of the project and is, therefore, responsible for implementing health and safety requirements and following safety procedures in the field. The Project/Site Supervisor is also responsible for conducting periodic safety inspections independent of the SSHC and CSC and correcting observed deficiencies on this site. The Project/Site Supervisor will contact the local emergency response organizations as required, and notify concerned affiliates of the hazards associated with this project.

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Gere CSC will approve modifications to this HASP.

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A. Selection and inspection of PPE;
B. Monitoring workers for signs of heat stress, cold stress, and fatigue;
C. Conducting periodic surveillance to evaluate effectiveness of the HASP;
D. Monitoring on-site hazards and conditions and recommending modifications to the HASP when new hazards are observed;
E. Informing the Project/Site Supervisor of observed safety deficiencies requiring corrective action;
F. Having knowledge of emergency procedures, evacuation routes, and telephone numbers for emergency services;
G. Posting directions to the hospital and telephone numbers for emergency services;
H. Coordinating emergency medical care as necessary;
I. Conducting and documenting safety walkthroughs daily and safety audits at least every other week;
J. Ensuring that the daily *Health and Safety Log* is available for review

K. Forwarding all accident / emergency reports to O'Brien & Gere Engineers representative, Marc Dent, within 24 hours.

1.6.6 All **Subcontractors** under contract to O'Brien & Gere are covered by this HASP and will be required to designate a Subcontractors Site Safety & Health Coordinator. This individual will be required to be on-site at all times the subcontractor has employees performing work for O'Brien & Gere and will have the same responsibilities as the O'Brien & Gere SSHC within the subcontractor's scope of work. This individual must also posses a sound working knowledge of pertinent OSHA regulations, this HASP, and other applicable Federal, State, local and Site Owner / Contractor health & safety requirements.

SECTION 2 - STANDARD OPERATING PROCEDURES

2. Procedures

This Health and Safety Plan (HASP) has been developed in accordance with the requirements set forth in 29 CFR Part 1926.65, *Hazardous Waste Operations and Emergency Response*, and in conjunction with the O'Brien & Gere Hazardous Waste Operations Standard Operating Procedures for O'Brien & Gere's on-site activities. O'Brien & Gere's Hazardous Waste Operations Standard Operating Procedures are in Program 2.22 of O'Brien & Gere's Corporate Health and Safety Manual (CHS Manual). Other referenced health and safety procedures can be found in the following sections of the O'Brien & Gere CHS Manual:

- SECTION 2.1 - Airborne Materials Exposure;
- SECTION 2.5 - Confined Spaces;
- SECTION 2.1 - Excavations;
- SECTION 2.20 - Hazard Communication;
- SECTION 2.22 - Hazardous Waste Operations;
- SECTION 2.32 - EPA Levels of Personal Protective Equipment;
- SECTION 2.37 - Respiratory Protection;
- SECTION 3.5 - Medical Surveillance; and
- SECTION 3.11 - Health and Safety Training.

The purpose of this HASP is to assign site-specific responsibilities, site-specific training requirements, establish site-specific personnel protective requirements, and to provide guidance for site-specific contingencies that may arise for O'Brien & Gere and subcontracted employees. In addition to this site-specific HASP, a copy of the O'Brien & Gere's CHS Manual will be kept on-site for reference purposes. All O'Brien & Gere personnel and subcontractor personnel must be familiar

with this site-specific HASP and referenced sections of the O'Brien & Gere CHS Manual prior to participation in site activities. Where a site-specific HASP is required by Governmental and / or Corporate regulations (i.e., hazardous waste sites) all personnel must read the site-specific HASP and sign the ***Safety Compliance / Pre-Work Briefing*** (Attachment 1).

NOTE: Subcontractors will review the O'Brien & Gere CHS Manual and / or site HASP to ensure they meet or exceed all Governmental and / or O'Brien & Gere Corporate requirements.

2.1 O'Brien & Gere Corporate Procedures

The following requirements specified by 29 CFR 1926.65 can be found in the O'Brien & Gere CHS Manual and are referenced in this HASP.

2.1.1 Personnel Training Assignments

The employee training assignments are found in SECTION 3.11 of the O'Brien & Gere CHS Manual. The description for the hazardous waste pre-entry briefing can be found in the hazardous waste protocols in SECTION 2.22, PART 4 of the O'Brien & Gere CHS Manual. Safety / toolbox meetings which provide additional training will also be performed on-site in accordance with Section 5.8 of this HASP.

2.1.2 Personal Protective Equipment (PPE)

The EPA definitions of PPE, donning, and decontamination procedures are found in SECTION 2.32 of the O'Brien & Gere CHS Manual. The site-specific PPE can be found in Section 3 of this HASP.

2.1.3 Medical Surveillance

The O'Brien & Gere Corporate Medical Surveillance program can be found in

SECTION 3.5 of the O'Brien & Gere CHS Manual. The site-specific medical surveillance program can be found in Section 6 of this HASP.

2.1.4 Air Monitoring

The O'Brien & Gere Corporate air monitoring program and calibration and maintenance procedures for air monitoring equipment is found in SECTION 2.1 of the O'Brien & Gere CHS Manual. Site-specific air monitoring information is described further in Section 4 of this HASP. Air monitoring results will be recorded on ***Air Monitoring Log*** and ***Air Sampling Data Sheet*** (Attachments 2 and 3).

2.1.5 Site Control

The O'Brien & Gere Corporate Site Control Program is found in SECTION 2.22, PART 4, Hazardous Waste Protocols of the O'Brien & Gere CHS Manual. The site-specific site control program can be found in Section 5 of this HASP. ALL employees and subcontractors must sign the ***Safety Compliance / Pre-Work Briefing*** (Attachment 1) prior to conducting work on site. If work is classified as hazardous waste operations per 29CFR1926.65, then the SSHC shall require all employees, subcontractors, and visitors to complete an ***Entry / Exit Log*** (Attachment 4).

2.1.6 Respiratory Protection

The O'Brien & Gere Corporate respiratory protection program is found in SECTION 2.37 of the O'Brien & Gere CHS Manual. Site-specific references to respirator use are included in Section 3.4 of this HASP. The use of negative pressure half or full-face respirators requires an acceptable fit test within the last 12 months. A record of the fit test will be documented on the O'Brien & Gere

Qualitative Fit Test form (Attachment 5) or equivalent.

2.1.7 Excavations

The O'Brien & Gere Corporate excavation safety procedure can be found in SECTION 2.11 of the O'Brien & Gere CHS Manual. Site-specific instructions for excavation safety are included in Section 5.5 of this HASP. Mandatory ***Soil Analysis Checklist*** and ***Daily Excavation Checklist*** are in Attachments 6 and 7, respectively.

2.1.8 Confined Space Entry Procedures

The O'Brien & Gere Corporate Confined Space Entry Procedure can be found in SECTION 2.5 of the O'Brien & Gere CHS Manual. Site-specific confined space entry information is included in Section 5.6. A ***Hot Work & Confined Space Entry Permit*** (Attachment 8) must be completed prior to entry of all confined spaces.

2.2 Site-Specific Procedures

The following sections, required by 29 CFR 1926.65, can be found in this HASP:

- Section 3 - hazard identification and hazard control;
- Section 4 - air monitoring procedures;
- Section 5 - site control measures and safety procedures;
- Section 6 - on-site medical monitoring program; and
- Section 7 - on-site emergency response procedures.

SECTION 3 - HAZARD EVALUATION

3. Potential Health Hazards

In addition to site-specific training on hazards outlined in the O'Brien & Gere Corporate hazardous waste operations in SECTION 2.22 of the O'Brien & Gere CHS Manual, the SSHC is also responsible for administering the O'Brien & Gere Corporate Hazard Communication Program. This Hazard Communication Program requires that all employees are informed about the hazards associated with chemicals used on the job and the location of the material safety data sheets (MSDS) for all materials brought on-site. The OSHA HAZWOPER standards (29 CFR 1910.120 and 1926.65) require that site personnel, subcontractors, and visitors must be informed of chemical hazards associated with the site. Health hazard information for site chemical hazards is summarized below and in Table 3.1 of this HASP.

Note: The MSDSs for hazardous materials brought on site will be filed in the O'Brien & Gere trailer. additional MSDSs can be obtained by contacting CHS in the Syracuse office.

3.1 Toxicology

Dust, which has accumulated over the years may become airborne during cleaning activities. The primary effect of nuisance dust is irritation of the eyes, nose, and throat when concentrations approach the OSHA exposure limits. Although levels may appear excessive based on visual observations, exposure limits should not be exceeded during this project. Exposure limits are specified in Table 3.1.1.

Metals can have a variety of effects because many target specific organs, such as the

liver, kidneys, central nervous system, and reproductive system. Symptoms of acute exposure will be similar to normal dust exposure which includes eye, nose, and throat irritation when dust levels approach or exceed OSHA limits. However, long-term exposure to low concentrations of some metals (i.e. lead and mercury) can result in gradual accumulation in the body which may eventually lead to adverse health effects.

TABLE 3.1.1 - Summary of Potential Health Effects

Chemical	Location	PEL [1]	IDLH	Characteristics	Routes of Exposure	Symptoms of Exposure and Health Effects
Nuisance Dust	All areas	15 mg/m³	Not Applicable	Airborne dust kicked up during sludge transportation or tailings area excavation activities. Excessive airborne dust will probably be observed at concentrations approaching the OSHA PEL.	Inhalation	Eye, nose, and throat irritation at concentrations approaching the OSHA PEL. If soil are highly alkaline or acidic, there is an increased potential for irritation at lower concentrations.
Metals Including Lead, Chromium, Copper, and Aluminun	contaminants in sandblasting debris	15mg/m³ aluminun 0.1 mg/m³ copper 0.050 mg/m³ lead 0.1 mg/m³ chromium	N.D. aluminum 100 mg/m³ lead 250 mg/m³ chromium 100 mg/m³ copper	Soil / dust / sandblasting debris	Inhalation Contact	Target organ effects to liver, kidneys, CNS, and reproductive system. Chromium, nickel and cadmium are potential carcinogens.

[1] An appeals court decision forced OSHA to revert the PELs published in 1989 to the PELs published in 1971. The PELs listed here reflect the 1971 PELs with 1989 PELs listed in parentheses. All values are 8-hour time-weighted averages (TWAs) unless otherwise indicated. Definitions: **PEL**: Permissible Exposure Limit, the concentration an employee may be exposed to for an 8-hour work day for a 40 hour work week for which nearly all employees may be repeatedly exposed without adverse health effects; **STEL** - Short-Term Exposure Limit as a 15 minute average; **Ceiling** - maximum concentration; **mg / m³** = milligrams per cubic meter of air; **f / cc** = fibers per cubic centimeter of air; IDLH: IMMEDIATELY Dangerous to Life and Health, contaminant concentration which present the possibility for severe health consequences if exposed to the IDLH concentration without the appropriate personal protective equipment (PPE), **LEL** = Lower Explosive Limit.

[¥] Substance for which the Threshold Limit value (TLV) is higher than the OSHA PEL and / or the National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL)

3. Potential Health Effects (continued)

3.2 Exposure Pathways

Possible exposure pathways are inhalation of the contaminants listed in Table 3.1.1 released from contaminated soil and/or water; inhalation of contaminated dusts, accidental ingestion of contaminants; and skin contact/absorption with contaminated soils and/or water.

Based upon anticipated site activities and prudent safety and hygiene practices during site work, ingestion of site contaminants is unlikely. Hazardous skin contact or absorption by the various contaminants is also unlikely because of the low concentrations that are anticipated and the use of personal protective equipment (PPE) when necessary. The primary route of exposure is inhalation of airborne contaminants and contaminated dusts. However, inhalation of airborne contaminants approaching the OSHA PELs is unlikely because of natural ventilation of the work area, safe work practices, PPE, and/or air monitoring. These compounds may cause noticeable odors during excavation. **Confined spaces, deep excavations (>4 ft), represent special exposure considerations because of the reduced natural ventilation and restricted means of egress.** Special procedures will be used to prevent injury and overexposure in confined spaces.

3.3 Hazard Identification and Control

Hazards and their respective controls for each work task or phase are outlined below in Table 3.2. Hazards are generally divided into two (2) categories, exposure to chemicals and hazardous materials and safety/physical hazards. Safety/physical hazards are generally construction-type hazards such as electrical shock, slips/trips/falls, and material handling. Chemical hazards are further segregated by their routes of exposure that may cause adverse health effects. If a hazardous material will not cause adverse health effects via skin contact, then "contact with contaminants" will not be listed under the "hazards" column.

Hazard controls generally consist of following specific safety procedures, training (i.e., toolbox safety topics, etc.), engineering controls (i.e., mechanical ventilation of confined spaces), air monitoring, and PPE selection. O'Brien & Gere employees and subcontractors are required to use the PPE appropriate to their work task and potential exposures as outlined in Section 3 of this HASP.

The levels of PPE assigned to each activity are based on available information on the estimation of exposure potential associated with each work task. The SSHC may revise these levels in accordance with Program 2.22 of the O'Brien & Gere CHS Manual and Section 4 of this HASP.

TABLE 3.2 - Hazard Identification and Control

Affected Personnel	Task / Operation	Hazards	Hazard Control
Laborers Operators Supervisors Engineers	**MOBILIZATION/ DEMOBILIZATION (non-intrusive)** Job tasks may include: equipment set-up; removal of equipment, facilities set-up and removal.	1. Safety/Physical Hazards: (such as) A. Noise; C. Overhead/buried Utilities; D. Electrical (during setup of utilities and equipment); E. Manual lifting of supplies and equipment; F. Heat/cold stress; G. Exposure to poisonous plants, insects, and snakes; and H. Slips/trips/falls.	1. **Level D PPE** 2. Safety/Physical Hazard Controls A. Hearing protection is required while operating noisy equipment (i.e., when noise interferes with talking while persons are less that 5 feet apart). B. Use trained operators, laborers, and electricians. C. Stay 20 feet from overhead/underground utilities. D. Use GFCI's on all outlets/circuits. E. Follow proper lifting guidelines: • Keep load in close to the body; • Keep hips and shoulders aligned (no twisting); • Maintain stability (keep a balanced position); and • Think and plan difficult lifts. F. Review symptoms and controls for heat/cold stress: • Drink fluids regularly (NOT coffee, soda, etc.); • Take breaks periodically to prevent heat/cold stress; and • Look for symptoms of heat/cold stress in coworkers. G. Be able to identify hazardous plants, insects and snakes commonly found in the area. H. Maintain housekeeping **daily.**

TABLE 3.2 - Hazard Identification and Control

Affected Personnel	Task / Operation	Hazards	Hazard Control
Chainsaw Users Laboerers Operators	**CLEARING & GRUBBING** Job task may include: chainsaw operations, front loader operation, chippers, surface grading to remove brush.	1. Safety/Physical Hazards: (such as) Hand and leg cuts from handling materials & equipment (including chainsaws) B Noise; C. Exposure to Heavy Equipment used to remove logs, trees, and brush. D. Heat stress; E. Slips/trips/falls; F. Electric shock from faulty tools and electrical cords.	1. Safety/Physical hazard Controls A Level D PPE (Hard Hat, Safety Glasses with sideshield, and safety shoes) plus leather gloves. **Leather gloves** must be worn at all times unless a greater hazard is created by wearing them. Chainsaw operators must also wear **chainsaw chaps** and hard-hat mounted **faceshield.** B. **Hearing protection** is required while operating noisy equipment (i.e., when noise interfers with talking while persons are less than 5 feet apart). C. Use trained operators, laborers, and electricians. Ensure backup alarms are operating on all equipment where vision to the rear is obstructed. Install additional backup alarms as required by OBG. D. Review symptoms and controls for heat/cold stress: *Drink fluids regularly (NOT coffee, soda, etc:); *Take breaks periodically to prevent heat/eold stress; and *Look for symptoms of heat/cold stress in coworkers: E. Maintain housekeeping **daily.** F. Use GFCI's on all outlets/circuits and extension cords. Be aware of faulty tools, understand their limitations, read the manufacturers recommendations for operations and maintenance.

TABLE 3.2 - Hazard Identification and Control

Affected Personnel	Task / Operation	Hazards	Hazard Control
Laborers Operators Supervisors Inspectors Engineers	**EXCAVATION of CONTAMINATED SOIL (intrusive)** Job tasks may include: dewatering of excavations and trenches; excavation and dewatering of contaminated sediments; excavation of contaminated soils; and slope protection.	1. Contact and/or inhalation of soils, water, sludge and dusts contaminated with site contaminants. 2. Safety/Physical Hazards: (such as) A. Noise; B. Exposure to Heavy Equipment Operated in Adjacent Work Areas; C. Heat/cold stress; D. Slips/trips/falls; E. Excavation and confined space hazards if persons must enter these areas F. Overhead powerlines and buried utilities	1. ***Modified* Level D PPE.** (The SSHC may downgrade to **Level D PPE** for Operators who do not have to enter excavations and will not otherwise contact contaminated soil.) 2. Safety/Physical Hazard Controls: A. Hearing protection is required while operating noisy equipment (i.e., when noise interferes with talking while persons are less that 5 feet apart). B. Use trained operators, laborers, and electricians. C. Review symptoms and controls for heat/cold stress: • Drink fluids regularly (NOT coffee, soda, etc.); • Take breaks periodically to prevent heat/cold stress; and • Look for symptoms of heat/cold stress in coworkers. D. Maintain housekeeping **daily**. E. Follow Excavation Safety procedures in Section 5.5 of this HASP. Follow Confined space entry procedures in Section 5.6 and Air monitoring procedures in Section 4 of this HASP. F. Identify all buried utilities and ensure a minimum of 10' clearance from all powerlines, more clearance may be required for high voltage lines.
Laborers Operators Technicians	**CISTERN REMOVAL DEMOLITION (intrusive/non-intrusive)** *Intrusive Job tasks may include*: use of vacuum truck for liquid waste removal; sludge removal; cutting tanks, sampling. *Non-intrusive Job tasks may include*: Removal of overlying pavement and clean fill; Installation of approved fill material.	1. Contact and/or inhalation of soils, sludge, water, and dusts contaminated with site contaminants. *Note: if confined spaces are entered, then there is an increased potential for inhalation of site contaminants; if confined spaces or excavations are entered, then there is and increased potential for skin contact.* 2. Safety/Physical Hazards: (such as) A. Noise; B. Exposure to Heavy Equipment Operated in Adjacent Work Areas; C. Heat/cold stress; D. Slips/trips/falls; E. Excavation and confined space hazards if persons must enter these areas; and F. Use of Hand tools. G. Falls from >6 feet H. Electrical shock - extension cords/power tools I. Fire/Explosion when cutting the tanks or while conducting internal cleaning activities.	1. INTRUSIVE: ***Modified* Level D PPE.** • Use additional PPE in accordance with special safety procedures for confined space entry. • IF confined spaces cannot be adequately ventilated from outside the spaces, THEN **Level C PPE** shall be the minimum level of protection NON-INTRUSIVE: **Level D PPE** 2. Safety/Physical Hazard Controls: A. Hearing protection is required while operating noisy equipment (i.e., when noise interferes with talking while persons are less that 5 feet apart). B. Use trained operators, laborers, and electricians. C. Review symptoms and controls for heat/cold stress: • Drink fluids regularly (NOT coffee, soda, etc.); • Take breaks periodically to prevent heat/cold stress; and • Look for symptoms of heat/cold stress in coworkers. D. Maintain housekeeping **daily**. E. Follow Excavation Safety procedures in Section 5.5 of this HASP. Follow Confined space entry procedures in Section 5.6 and air monitoring procedures in Section 4 of this HASP. F. Be aware of faulty tools, understand their limitations, read the manufacturers recommendations for operation and maintenance. G. Follow Fall Protection requirements in Section 5.7 of this

TABLE 3.2 - Hazard Identification and Control

Affected Personnel	Task / Operation	Hazards	Hazard Control
Laborers Operators Supervisors Inspectors Engineers	**REGRADING & PAVING** **(intrusive & non-intrusive)** *Intrusive job tasks may include*: Regrading backfill material *Non-Intrusive job tasks may include*: Installation of compacted 6" layer of stone subbase, and 3" asphalt binder.	1. Contact and/or inhalation PCB/PAH-contaminated dusts. 2. Safety/Physical Hazards: (such as) A. Noise; B. Exposure to Heavy Equipment; C. Heat/cold stress; D. Slips/trips/falls; E. Excavation and confined space hazards if persons must enter these areas;	1. ***Intrusive Tasks - Modified* Level D PPE.** • The SSHC may increase to **Level C PPE** if required by air monitoring results. • The SSHC may downgrade to **Level D PPE** for Operators who do not have to enter excavations and will not otherwise contact contaminated soil. **Non-intrusive Tasks - Level D PPE** 2. Safety/Physical Hazard Controls: A. Hearing protection is required while operating noisy equipment (i.e., when noise interferes with talking while persons are less that 5 feet apart). B. Use trained operators, laborers, and electricians. C. Review symptoms and controls for heat/cold stress: • Drink fluids regularly (NOT coffee, soda, etc.); • Take breaks periodically to prevent heat/cold stress; and • Look for symptoms of heat/cold stress in coworkers. D. Maintain housekeeping **daily**. E. Follow Excavation Safety procedures in Section 5.5 of this HASP. Follow Confined space entry procedures in Section 5.6 and air monitoring procedures in Section 4 of this HASP. F. Be able to identify hazardous plants, insects and snakes commonly found in the area.
Laborers Operators Supervisors	**SITE RESTORATION (non-intrusive)** *Job tasks may include*: backfilling, stone work, grading and paving or any other site restoration activities that do not disturb contaminated soil, sediment, or groundwater.	1. Safety/Physical Hazards: (such as) A. Excavation hazards for those >5ft; B. Confined space hazards. C. Noise; D. Use of Heavy Equipment; E. Electrical hazards: use of power tools and installation/removal of equipment; F. Manual lifting of supplies and equipment; G. Heat/cold stress; and H. Slips/trips/falls.	1. **Level D PPE** 2. Safety/Physical Hazard Controls: A. Follow excavation safety procedures in Section 5.5 of this HASP B. Follow confined space entry procedures in Section 5.6 of this HASP. C. Hearing protection is required while operating noisy equipment (i.e., when noise interferes with talking while persons are less that 5 feet apart). D. Use trained operators, laborers, and electricians, mechanics E. Use GFCI's on all outlets/circuits F. Follow proper lifting guidelines: • Keep load in close to the body; • Keep hips and shoulders aligned (no twisting); • Maintain stability (keep a balanced position); and • Think and plan difficult lifts. G. Review symptoms and controls for heat/cold stress: • Drink fluids regularly (NOT coffee, soda, etc.); • Take breaks periodically to prevent heat/cold stress; and • Look for symptoms of heat/cold stress in coworkers. H. Maintain housekeeping **daily**

TABLE 3.2 - Hazard Identification and Control

Affected Personnel	Task / Operation	Hazards	Hazard Control
Laborers Operators Technicians Supervisors Engineers Visitors	**DECONTAMINATION ACTIVITIES (intrusive)** *Job tasks may include*: decontamination of personnel, equipment and/or materials.	1. Contact with contaminated tools, equipment, and decontamination water. 2. Safety/Physical Hazards: (such as) A. Noise; B. Burns from steam/hot water; C. Injuries from high pressure water spray; D. Exposure to heavy equipment; E. Heat stress; and F. Slips/Trips/Falls.	1. ***Modified* Level D PPE** and face shield decontamination personnel working in contamination reduction zone. 2. Safety/physical hazard controls: A. Hearing protection is required while operating noisy equipment (i.e., when noise interferes with talking while persons are less that 5 feet apart). B. Use extreme caution when using "hot" liquids. C. Review SOPs/operating instructions/manufacturers recommendation for decontamination equipment. D. Use trained operators, laborers, and electricians, mechanics. E. Review symptoms and controls for heat/cold stress: • Drink fluids regularly (NOT coffee, soda, etc.); • Take breaks periodically to prevent heat/cold stress; and • Look for symptoms of heat/cold stress in coworkers. F. Maintain housekeeping in the decontamination area **daily**.

3.4 Site-specific Personal Protection

The site-specific personal protective equipment is to be used in accordance with the protocols in SECTION 2.32 of the CHS Manual which encompass procedures defining EPA levels of protection, as well as, PPE selection based upon site hazards, PPE use and limitations, work mission duration, PPE maintenance and storage, PPE decontamination and disposal, PPE training and proper fitting, PPE donning and doffing, PPE inspection prior to, during, and after use and limitations during temperature extremes, heat stress, and other appropriate medical considerations. The site-specific personal protective equipment is listed below.

3.4.1 Level D Personal Protective Equipment

Level D PPE: Safety glasses with side shields, hard hat, safety shoes, and hearing protection. Work gloves must be worn when handling materials with sharp edges.

3.4.2 ***Modified*** Level D Personal Protective Equipment

***Modified* Level D PPE**: *Full Modified Level D PPE* consists of Level D PPE plus coveralls, nitrile gloves (or equiv), and boots or shoe covers. Full Modified Level D PPE is necessary when extensive contact with contaminated materials is anticipated, such as the manual-excavation of contaminated soils. *Lightweight Modified Level D PPE* consists of nitrile gloves (or equiv) and boots or boot covers. Lightweight Modified level D is necessary when minimal contact with contaminated materials in anticipated and contamination control must be maintained.

A face shield is included for decontamination activities using pressure washing or steam or while handling drums that contain liquid.

A. Coveralls: Uncoated Tyvek® when exposed to dirt / dusts, poly-coated Tyvek® when exposed to light or moderate amounts of overspray and Saranex®-coated Tyvek® if overspray exposure is heavy. SSHC will select based on site conditions.

B. Outer Gloves: Nitrile Type

C. Inner Gloves: Surgical Type (optional)

3.4.3 Level C Personal Protective Equipment.

Level C PPE: Modified Level D PPE plus an air purifying respirator. Half-face or full-face respirators with organic vapor / dust combination cartridges should be used in accordance with air monitoring action levels in Section 4 of this HASP. All joints between various garments should be sealed with duct tape.

3.4.4 Level B Personal Protective Equipment

NOTE: Level B PPE is not anticipated.

Level B PPE: Modified Level D PPE plus self-contained breathing apparatus (SCBA) or supplied-air respirator. Positive pressure, full-facepiece SCBA or positive pressure, supplied-air respirator with escape SCBA are the only approved respirators for Immediately Dangerous to Life and Health (IDLH) or oxygen deficient atmospheres. Refer to Table 3.1.1 for guidance on IDLH levels.

3.5 Dust Suppression

The SSHC shall implement one or more of the following dust control measures if dusty conditions are observed:

• Wetting excavation area, building surfaces and / or debris;

- Spraying water on buckets when excavating and dumping contaminated soil or debris;
- Hauling materials in properly tarped or watertight container;
- Modifying work practices, such as reducing the size and / or number of demolition activities;
- Restricting vehicle speeds to 10 mph; and
- Applying water to haul roads.

NOTE: This list is not intended to be all inclusive.

3.6 Decontamination

The site-specific personal protective equipment decontamination procedures are to be used in accordance with the protocols in Program 2.32 of the O'Brien & Gere CHS Manual. Presented below are the site-specific decontamination procedures.

Personnel working in the Exclusion Zone will be required to enter and exit the work area through the decontamination area (i.e., Contamination Reduction Zone) Personnel engaged in vehicle decontamination will wear protective equipment including appropriate disposable clothing and respiratory protection and will also decontaminate prior to leaving the decontamination area. The SSHC will determine the appropriate location for the decontamination area. Following decontamination, disposable items are to be disposed of in dry, impermeable containers.

3.6.1 Clothing

In general, decontaminating protective equipment will involve scrubbing heavily soiled boots and gloves, rinsing gloves and overboots with soap (i.e. Alconox®) and water. Decontamination procedures will be conducted at the end of the each day. If the Exclusion Zone is left at any time during the work day, decontamination procedures must be followed and boots and gloves will be left at the

decontamination area on plastic sheeting. Following decontamination, disposable items are to be disposed of in dry, impermeable containers.

3.6.2 Equipment

Equipment and vehicles used in the Exclusion Zone to handle contaminated materials will undergo decontamination procedures in the decontamination area prior to leaving the Site. The SSHC will document that each piece of equipment has been decontaminated prior to removal from the Site. The decontamination procedures will include, but are not limited to:

A. Movement of equipment to the decontamination pad;
B. Removal of heavily-caked material with brushes or shovels;
C. Triple-rinsing with high pressure water or steam; and
D. Air-drying of equipment.

SECTION 4 - AIR MONITORING & ACTION LEVELS

4. Monitoring

Air monitoring is to be performed in accordance with Program 2.1 of the O'Brien & Gere CHS Manual, *Airborne Materials Exposure*, and Program 2.22 of the O'Brien & Gere CHS Manual, *Hazardous Waste Operations*. Presented below is the site-specific information. The purpose of air monitoring is to verify the adequacy of PPE being used and to evaluate new hazards or changing site conditions.

The "**site**" refers to the entire work area designated for this project. The "**fenceline**" refers to the site perimeter and includes areas where the general public may be present. **Community action levels** generally apply at the fenceline or site perimeter. The "**work area**" is the area immediately surrounding various work activities and is the area within which "work area action levels" apply. Exclusion Zones may be setup to coincide with the perimeter of individual work areas or encompass several work areas. Where Exclusion Zones are adjacent to the fenceline, the most stringent of "work area and community action levels" shall apply.

4.1 Wind Indicator

Not required.

4.2 Air Monitoring Equipment to be Used

Constituent	Monitor / Method
Dust/Particulate	Dustrak, MiniRam, or equivalent
	SSHC Observations (when real-time monitoring is not required)

NOTE: Monitoring Instruments will be calibrated prior to each full day of equipment usage or more frequently in accordance with manufacturers recommendations. Calibrations will be recorded on the ***Equipment Calibration Log*** *found in SECTION 4 of the CHS Manual.*

4.3 Work Area Air Monitoring

The following describes the methods and parameters to be used for PPE upgrades and work cessation. A combustible gas / oxygen meter will be required for entry into confined spaces, including excavations greater than four (4) feet deep.

TABLE 4.3 - Work Area Air Monitoring Action Levels

Contaminant / Method	Frequency	Action Level (sustained for 5 minutes)	SSHC Action
COMBUSTIBLE VAPORS O_2 / LEL Meter	1. .Prior to and continuous during confined space entry (i.e., excavations >4 ft. and tanks). ***NOTE**: a trench or pit with limited access over 4' may be considered a confined space.*	10% LEL	1. **STOP** work 2. Use ventilation or other controls to reduce combustible vapors. to keep combustible vapors <10% LEL.
OXYGEN O_2 / LEL Meter	1. Prior to and continuous during confined space entry (i.e., excavations >4 ft. and tanks). ***NOTE**: a trench or pit with limited access over 4' may be considered a confined space. Note: Oxygen measurements must always be taken with comb. gas measurements.*	<19.5% O_2 and >23.5% O_2 *Note: Air is normally 20.8% O_2*	1. **STOP** work 2. Use ventilation to restore acceptable oxygen levels OR use Level B PPE. 3. Notify the O'Brien & Gere CSC **prior** to confined space entry under oxygen deficient conditions.
DUST SSHC Observation Dust Meter	Continuous	0 - 1.0 mg/m³	1. Maintain dust controls 2. If visible dust is observed near the Exclusion Zone Perimter, conduct Community Air Monitoring as outlined in Section 4.4 of this HASP.
		1.0 - 5.0 mg/m³	1. Increase dust controls (Use dust suppression techniques outlined in Section 3.4 of this HASP.) 2. Conduct Community Air Monitoring as outlined in Section 4.4 of this HASP. 3. Notify the O'Brien & Gere Project Manager
		>5.0 mg/m³	1. **STOP** work. 2. Re-evaluate effectiveness of dust controls. Identify new controls.
		Visible Dust Observations	**NOTE:** Visible dust approaching the perimeter of the Exclusion Area will require Community Air Monitoring as outlined in Section 4.4 of the HASP irregardless of air measurements in the work area.

4.4 Community Air Monitoring

Real-time monitoring for dust at the perimeter of the Exclusion Zone will be performed when required based on work site activities and work area air monitoring. Regardless of instrument measurements, observations of dust leaving the site or odors at the fenceline will require modification of work practices or implementation of controls to protect the public.

Community air monitoring will be performed at the perimeter of the Exclusion Zone, 200 feet downwind of the work area, or half the distance to the nearest residential or commercial structure, whichever is less.

TABLE 4.4 - Community Air Monitoring Action Levels

Type	Frequency	Action Level	SSHC Action
DUST SSHC Observations	As required by Work Area air monitoring results and visual dust observations.	Excessively dusty conditions	1. If dust is observed leaving the site, then dust controls must be implemented or additional controls used. 2. If dust controls fail to prevent dust emissions from leaving the site, then **STOP** work and notify the Project Manager representative.
Dust Meter	***NOTE**: Monitoring will not be conducted during the rain.. Take a background dust measurement at the start of daily intrusive activities and retake the background measurement when site conditions change significantly.*	0 - 0.1 mg/m³	1. Maintain dust controls. 2. Continue Work Area activities including Work Area air monitoring.
		0.1 - 0.15 mg/m³	1. Increase dust controls until concentrations are below 0.1 mg/m³ 2. Continue Community Air monitoring until dust concentration are <0.1 mg/m³ and visible dust is NOT observed leaving the Exclusion Zone. 3. Notify the Project Manager representative
		>0.15 mg/m³	1. **STOP** work 2. Notify the Project Manager, OBG Engineers representative, and the CSC 3. Re-evaluate dust control procedures and work methods. 4. If this action level is is exceeded the Division of Air Resources will be notified in writing within five working days by OBG Engineers representative, Marc Dent

SECTION 5 - SITE CONTROL & SAFETY PROCEDURES

5. Procedures

The elements of site control include restricting access to the site to persons trained in safety procedures, the "buddy" system, site communication, and site security. Procedures for site control can be found in Program 2.22, of the O'Brien & Gere CHS Manual. Only approved, trained personnel will be allowed to enter the Exclusion Zone and Contamination Reduction Zone. Personnel must understand this HASP and the potential on-site hazards before being allowed on site in accordance with Section 2.1 of this HASP. Work areas and procedures may be modified by the SSHC on the basis of prevailing site conditions.

Site security and control at individual work sites will be maintained by the SSHC. Responsibilities will include limiting access to the site to authorized personnel, providing oversight of project equipment and materials, and providing general oversight of site activities. Work zones will be identified by temporary fencing, barricade tape, postings, or equivalent depending on the needs associated with individual work sites.

The SSHC or Project Supervisor will clearly layout and identify work areas in the field and will limit equipment, operations and personnel in the areas as defined above prior to initiation of site activities.

NOTE: Documentation is required for many of the following safety procedures and should be filed on site for the duration of the project. Also, documentation should be sent the O'Brien & Gere CSC when specified below. CHS will retain all applicable documentation for the duration of the project and longer if deemed necessary

5.1 Work Zones

5.1.1 The **Exclusion Zone** is the area where the contamination exists and the potential physical and chemical hazards primarily exist. Personnel entering the Exclusion Zone must be wearing the proper personal protection. At a minimum, there must be two site personnel within view of each other while working in the Exclusion Zone (i.e., the "buddy" system). Personnel must exit the Exclusion Zone through the Contamination Reduction Zone unless otherwise specified. The Exclusion Zone must be clearly indicated on site.

NOTE: Equipment operators in cabs located outside the Exclusion Zone are themselves considered outside the Exclusion Zone for this project. However, the contaminated parts of the equipment must be decontaminated prior to leaving the site.

5.1.2 The **Contamination Reduction Zone** is the transition area between the Exclusion Zone and the Support Zone. Equipment and personnel decontamination is conducted in the Contamination Reduction Zone in accordance with Section 3.5 of this HASP. Personnel performing equipment or personnel decontamination should be wearing appropriate personal protection.

NOTE: Personnel boot wash stations and plastic sheeting may be used between separate work areas within the Exclusion Zone.

5.1.3 The Support Facilities, including the field offices and sanitary facilities are located within the **Support Zone**. Emergency telephone numbers will be posted in this area. Eye wash stations, first aid kits, and fire extinguishers will also be located in this area.

5.2 Hot Work

ALL hot work (i.e., welding, cutting, grinding, or any other activity which may involve flames or sparks) must be identified and approved on the O'Brien & Gere ***Hot Work & Confined Space Entry Permit*** in Attachment 8. Permits are issued daily by O'Brien & Gere Supervisors or Foremen.

- Specify an individual to be the fire watch. They will be responsible for periodically inspecting the site for evidence of fire or fire hazards associated with hot work activities.
- Write the name of the fire watch on the Hot Work Permit. Changes in fire watch persons must immediately be noted on the permit.
- Continue fire watch activities for 30 minutes after hot work activities have stopped.
- All combustible material must be removed from the hot work area when possible or protected from sparks and slag.
- All hot work areas shall be specified on the Hot Work Permit. Hot work shall NOT be conducted in additional areas without first notifying the O'Brien & Gere Site Supervisor / Foreman and revising the permit.

NOTE: Additional fire safety precautions may be specified on the permit and must also be implemented by O'Brien & Gere personnel.

5.3 Housekeeping

The site shall be maintained in a clean and orderly condition at all times. Construction areas shall be free of waste materials, debris, and rubbish to the extent that is feasible. Materials and equipment shall not obstruct traffic or emergency response activities. Waste materials, debris, and rubbish shall periodically be removed from the site and properly disposed off-site as required by site conditions and activities.

5.4 Lockout / Tagout

All line / pipe breaking and operation of electrical power (or any other system) must be identified and approved on the O'Brien & Gere ***Hot Work & Confined-Space Entry*** (Attachment 8). When required, O'Brien & Gere will follow the site owner's lockout / tagout program.

5.5 Excavations

All excavations greater than 5 feet deep require completion of a ***Soil Analysis Checklist*** and ***Daily Excavation Checklist*** (Attachments 6 and 7). Excavations greater than four (4) feet in depth are considered a confined space and require completion of an O'Brien & Gere ***Hot Work & Confined-Space Entry*** (Attachment 8) prior to entry.

5.6 Confined Space Entry

The O'Brien & Gere Confined Space Entry procedure in Program 2.5 of the O'Brien & Gere CHS Manual must be followed and a ***Hot Work & Confined-Space Entry Permit*** (Attachment 8) must be completed prior to entry. FULLY completed confined space entry permits must be sent to the O'Brien & Gere CSC when the permits expire or are canceled.

All persons entering manholes, tanks or similar confined spaces must have a body harness and lifeline attached. When vertical entry / exit is required greater than five (5) feet, a tripod and man-winch (or equivalent means of rescue) must be setup prior to entry. The standby person must be familiar with its operation. Off-site rescue services (i.e., fire department) MUST also be available and notified of the entry. Standby persons shall NOT enter confined spaces to conduct rescue or first aid activities. IF the potential for a hazardous atmosphere has been eliminated, THEN rescue or first aid personnel do NOT require an SCBA for entry.

5.7 Fall Protection

The SSHC must discuss deviations from this requirement and other O'Brien & Gere *Fall Protection* program requirements with the O'Brien & Gere CSC. OSHA-approved methods of fall protection are required under the following conditions:

- An employee is working **six (6) feet** or more above the ground;
- An employee is working in a manlift or scissors lift more than **six (6) feet** above the ground;
- An employee is involved in assembly/disassembly of scaffolds, work platforms or temporary surfaces working **six (6) feet** or more above the ground;
- An employee is working over dangerous equipment/conditions (at any height);
- An employee is working on a walking/working surface that has an unprotected edge or floor opening/hole that will expose the employee to a fall greater than **six (6) feet**; and
- An employee is working on a roof where the employee may fall greater than **six (6) feet**.

NOTE: There are specific requirement for working on low-sloped roofs that may exempt employees from the requirements of fall protection. Contact CHS for guidance.

5.8 Safety & Toolbox Meetings

5.8.1 Safety Meetings

At a minimum, informal safety meetings must be held for O'Brien & Gere employees and subcontractors. Task-specific safety meetings for non-routine or high hazard tasks should also be conducted with O'Brien & Gere personnel assigned to those tasks. The following will be covered:

A. The day's work activities and / or task-specific work activities are to be reviewed and any safety considerations identified are to be discussed; and

B. The previous day's work activities are to be reviewed and any health or safety considerations or deficiencies are to be discussed.

5.8.2 Toolbox Meetings

Toolbox meeting will be conducted at a minimum, once per week. Weekly topics will cover a multitude of Health and Safety related information and be documented in the following manner:

A. All attendees are to sign in on the *Safety/Toolbox Meeting* form (Attachment 9);
B. The form is to be complected by all employees; and
C. A copy of the *Safety/Toolbox Meeting* form will be filed on-site for the duration of the project.

Safety / Toolbox Meetings may be conducted by subcontractors if equivalent documentation guidelines are met, however a copy of each meetings document must be kept on-site for the duration of the project by the O'Brien & Gere SSHC.

5.9 Drum Handling Guidelines

NOTE: Drums are not anticipated at this site. In the unlikely event that they are encountered, the SSHC must STOP work, notify an Former Jarl Extrusion representative and the O'Brien & Gere CSC, who will notify the Project Manager. At a minimum, the following drum handling guidelines must be followed AFTER making the above notifications and modifying this HASP (if required).

5.9.1 Extreme care will be exercised in opening drums or other sealed containers in which the contents may be harmful to sampling personnel. When practical, a drum will not be moved or opened unless the drum appears to be structurally sound.

5.9.2 Drums will be opened in such a manner that excess interior pressure, as evidenced

by bulging or swelling, has been safely relieved. If pressure cannot be relieved from a remote location, appropriate shielding will be placed between sampling personnel and the drums to reduce the risks of injury.

5.9.3 All drums that cannot be moved without rupture, leakage or spillage will be emptied into a DOT approved 85 gallon salvage drum using a portable hand pump (for liquid wastes) or a hand shovel (for solids and sludges).

5.9.4 Drums shall be moved by grappler, non-metallic slings, within a backhoe bucket or front-end loader, or by other means that will minimize damage to containers and release of contents.

5.9.5 Additional overpack units, in addition to those required to overpack the drums, should be provided on site adjacent to the staging area and each active excavation area.

5.10 General Worker Safety Rules

Workers follow the established safety practices for their respective tasks. The need to exercise caution in the performance of work is made more acute due to weather conditions and restrictions in mobility, peripheral vision, and communication caused by the personal protective equipment. To enhance site safety, the following general worker safety procedures have been established:

- Smoking in work areas is prohibited.
- Eating, drinking, chewing gum, chewing tobacco and application of cosmetics in work areas is prohibited, except in specifically designated areas.
- In any unknown situation, always assume the worst conditions and plan accordingly.
- Employ the "buddy" system when appropriate. Be alert.
- Minimize contact with contaminated materials.

- Avoid breathing chemical odors.
- Stay upwind of the containment source if possible.
- Do not expose skin to water, chemicals, or soil. If one becomes dirty or wet with contaminated fluids, clean up immediately using plenty of water.
- Plan work areas and decontamination zones, and develop safety procedures to minimize exposure to contaminants.
- Hands must be washed before eating, drinking, and before using toilets.
- Avoid heat, cold, and other work stresses related to wearing the protective gear. Work breaks should be planned to prevent stress-related accidents or fatigue.
- Maintain monitoring systems. Conditions can change quickly if subsurface areas of contamination are penetrated.
- Withdraw from a hazardous situation to reassess procedures and consult with the SSHC.
- Showers will be required when deemed necessary by the SSHC.
- Project personnel should check for any personal habit which may allow contaminated soil or water onto or into the body.
- No jewelry except medical alert ID's may be worn. Watches should be carried in a pocket. This requirement may be modified at the discretion of the SSHC.
- Be aware that chemical contaminants may mimic or enhance symptoms of other illnesses or intoxication.
- Consumption of alcohol and working when ill are prohibited.
- Maintain PPE. Check it daily to ensure that it is clean and in good working order.
- Follow the procedures set forth in this HASP. Notify the SSHC if there is a need to change the health and safety procedures.

5.11 Health and Safety Log

The SSHC shall maintain a DAILY health and safety log to document daily safety inspections and other safety-related information. The daily log must include the following information when applicable:

- Date and areas Inspected (be specific);
- Equipment utilized and work tasks being performed;
- Personal protective equipment and devices used;
- Violations of this HASP;
- Instances of job related injuries/illnesses (document per Section 7 of this HASP);
- Corrective measures put in place to resolve safety deficiencies;
- Monitoring performed;
- SSHC signature and date and military time of Log entry.
- Daily weather conditions;
- Summary of air monitoring performed that week (including results of perimeter monitoring sample analysis completed that week).

All reports, logs, ***Safety / Toolbox Meeting*** forms, air monitoring records, and similar safety-related information shall be kept in the O'Brien & Gere support area for the duration project.

NOTE: The SSHC's Health and Safety Log should be handwritten in a bound notebook. It does not have to be a separate notebook and may be included as within the supervisor's daily work / activity log or equivalent. The notebook should be available for review by Former Jarl Extrusion and other authorized personnel.

5.12 Site Communications

Two (2) sets of communication systems will be established prior to initiating site activities: 1: internal communications among personnel on-site and 2: external communication between on-site and off-site personnel. Internal communication protocol is designed to alert team members to emergencies; pass along safety information; time remaining until next rest period; changes in the work to be accomplished; and maintenance of site control. An external communication system between on-site and off-site personnel is necessary to coordinate emergency response, report to management, and maintain contact with essential

off-site personnel.

On-site internal communications will be conducted through verbal communications and / or hand-held two-way FM radios. Nonverbal communications will be used when background noise impede verbal communications. Nonverbal communications will utilize standard hand and air-horn signals, as illustrated below:

5.12.1 Communication Procedures

A. IF hand-held two-way FM radios are required for effective on-site communication, THEN an emergency channel will be selected.

B. Personnel in the Exclusion Zone should remain in constant radio and / or verbal communication or within sight of the Site Supervisor / Foreman or designated personnel. Failure of radio and/or verbal site communication procedures will require that communication procedures be immediately evaluated and modified as necessary to prevent future communication failures.

C. A 10 second blast with an air horn will indicate the initiation of a site evacuation. All site personnel shall evacuate the site and proceed to place(s) of safe refuge.

D. External communications (when feasible) during site activities will be accomplished by use of telephone established in the Support Zone.

5.12.2 Nonverbal Communication

The following standard hand signals will be used in case of failure of radio communications:

A. Hand gripping throat *Out of air, can't breathe*

B. Grip partner's wrist or both hands around waist *Leave area immediately*

C.	Hands on top of head	*Need assistance*
D.	Thumbs up	*OK, I am all right, I understand*
E.	Thumbs down	*No, negative*

5.12.3 Lines of Communication

In general, all health and safety concerns will be first addressed by the SSHC. The SSHC will then pass on all pertinent information to theProject/ Site Supervisor, Project Manager and CSC respectively.

SECTION 6 - MEDICAL MONITORING

6. Medical Surveillance

The O'Brien & Gere's medical surveillance program has been developed in accordance with the requirements set forth in 29 CFR 1926.65 and can be found in Program 3.5 of the O'Brien & Gere CHS Manual. This program has been designed to provide baseline medical data for each employee involved in hazardous waste operations and to determine his/her ability to wear personal protective equipment, such as chemical resistant clothing and respirators. Subcontractors are required to have equivalent medical surveillance.

6.1 Fitness for Respirator Use

Employees who may wear respiratory protection must be provided respirators as regulated by 29 CFR 1926.103 and 29 CFR 1910.134. This Standard requires that an individual's ability to wear respiratory protection be medically certified before he / she performs designated duties. Where medical requirements of 29 CFR 1926.65 overlap those of 29 CFR 1910.134, the most stringent of the two will be enforced.

6.2 Medical Examinations

Medical examinations are administered on a pre-employment and annual basis and as warranted by symptoms of exposure or specialized activities. The medical facility that conducts O'Brien & Gere's employees hazardous waste examinations is administered by a board-certified physician. The examining physician is required to make a report to O'Brien & Gere of any medical condition which would place O'Brien & Gere's employees at risk when wearing a respirator, wearing other personnel protective equipment, or working with

hazardous materials. O'Brien & Gere maintains O'Brien & Gere's site personnel medical records in accordance with OSHA regulations.

6.3 Heat / Cold Stress

The timing and location of this project may be such that heat / cold stress could pose a threat to the health and safety of site personnel. Work / rest regimens will be employed as deemed necessary by the SSHC so that O'Brien & Gere and subcontracted personnel do not suffer adverse effects from heat / cold stress. Special clothing and an appropriate diet and fluid intake will be recommended to all on-site personnel to further reduce these temperature-related hazards. Site workers should stop work, notify the SSHC when they observe symptoms of heat / cold stress in themselves or co-workers.

6.3.1 Monitoring

Heat stress monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70°F or above. To monitor the worker, one of the following methods should be employed:

A. Heart rate should be measured by the radial pulse for a 30 second period as early as possible in the rest period. If the heart rate exceeds 110 beats per minute, shorten the next work cycle by one-third and keep the rest period the same. If the heart rate still exceeds 110 beats per minute at the next rest period, shorten the following cycle by one-third.

B. Oral temperature should be measured at the end of the work period (before drinking). If oral temperature exceeds 99.6°F, shorten the next work cycle by one-third without changing the rest period. If the oral temperature still exceeds 99.6°F at the beginning of the next rest period, shorten the next work cycle by one-third. Do not permit a worker to wear a semi-permeable or impermeable garment when his / her oral temperature exceeds 100.6°F.

6.3.2 Cold Stress Work / Rest Schedules

Work / rest schedules must be altered to minimize the potential for cold stress. Cold stress is defined as a decrease in core body temperature to 96.8°F and / or cold injury to body extremities. Decreases in core body temperature are associated with reduced mental alertness, reduction in rational decision making, or loss of consciousness in severe cases. Symptoms of cold stress include pain in extremities (i.e. hands and feet) and severe shivering. If workers experience these symptoms, then stop work and implement the following controls

A. Workers must don adequate dry insulating clothing; and

B. Adjust the work / rest schedule to increase the amount of rest / rewarming time.

C. Toolbox safety meetings discussing symptoms of cold stress, clothing requirements, and work breaks must be held when the wind chill temperature (see Appendix A) drops below 0°F and EACH DAY the wind chill temperature is below 25°F.

NOTE: Wind chill temperatures are a combination of actual air temperature and wind speed as shown in Appendix A. Wind chill temperatures ≤25°F below zero are extremely dangerous. Workers must protect any exposed skin, especially the face, ears, and fingers.

SECTION 7 - EMERGENCY RESPONSE & CONTINGENCY PLAN

7. Emergencies

This emergency response section details actions to be taken in the event of site emergencies. The SSHC is responsible for implementation of emergency response procedures.

7.1 Emergency Phone Numbers (to be posted on site)

Emergencies encountered on this site will be responded to via off-site emergency services and Former Jarl Extrusion personnel. The following master phone list will be prominently posted at the site command post.

EMERGENCY RESOURCES/PROCEDURES:

Person or Agency	Phone Number
LOCAL:	
FIRE	911
AMBULANCE	911
POLICE	911
HOSPITAL	911
CIVIL DEFENSE:	
National Response Center (USEPA and U.S.C.G.)	(800) 424-8002
USEPA Environmental Response Team	(908) 321-6660
CHEMTREC	(800) 424-9300
New York State Emergency Response	(518) 457-7362
CONTRACTORS:	
O'Brien & Gere O'Brien & Gere, Inc. (Syracuse office)	315-437-6400
Corporate Safety Coordinator (office)	315-637-2110
Corporate Safety Coordinator (pager)	315-391-0638
Occupational Physician - Industrial Medical Associates	(315) 475-2909

EMERGENCY RESOURCES/PROCEDURES:

Person or Agency Phone Number

7.2 Emergency Route

(To be posted on site - Refer to Figure 1.)

1. Turn LEFT out of the facility onto LINDEN AVE.

2. Turn RIGHT onto WASHINGTON ST.

3. Go several blocks, turn RIGHT onto AIRPORT AVE.

4. Take entrance ramp onto 490 WEST

5. Follow signs to 590 NORTH

6. Exit at signs for ROUTE 104 and HOSPITAL

7. Go straignt, then turn LEFT onto PORTLAND AVE. (follow signs for hospital)

8. Hospital is on the right at 1425 PORTLAND AVE.

7.3 Emergency Inventory

In addition to those items specified elsewhere, the SSHC or designee will maintain the following equipment and protective clothing in the event of emergencies:

• Emergency eye-wash bottles;

- First aid / Bloodborne pathogens kit;
- Fire extinguishers (in mobile equipment, office trailers, near hot work, etc.);
- Three complete sets of Modified Level D PPE (in the support zone); and
- Air horns: Air horns will be kept in the Support Zone, on heavy equipment, and in other locations designated by the SSHC or designee.

NOTE: The location of some emergency equipment (fire extinguisher, air horns, etc.) may change due to changing site characteristics. In general, equipment and supplies designated for emergency response will be located in the Support Zone (in the control end of the decon trailer).

7.4 Safe Refuge

In general, the Support Zone will serve as point of safe refuge. The safe refuge for this project is directly outside the decon trailer. All personnel will be accounted for by SSHC or designee.

7.5 General Emergency Response Procedure

All fires, explosions, personal injuries, or similar accidents will follow this general procedure. This procedure is supplemented by specific sections for *Fire/Explosion Response* (Section 7.6) and *Personal Injury Response* (Section 7.7).

7.5.1 All site personnel will immediately **evacuate** the Exclusion and Contamination Reduction Zones upon hearing a 10 second blase of an air horn or upon receiving radio/verbal communication to evacuate.

A. All personnel shall report to the **Safe Refuge** area and be counted by the SSHC or designee.

B. Do NOT leave site vehicles or equipment on access roads such that

emergency response vehicles may be obstructed.

7.5.2 In the event of a site emergency, the SSHC or designee will off-site emergency personnel. When necessary, the SSHC will coordinate the arrival of off-site emergency personnel with the site owner's security, safety, and/or emergency response employees. The SSHC or designee will briefly explain the nature of the emergency and site conditions as follows:

A. Indicate his/her name;
B. Location of emergency (site address, support zone or exclusion zone);
C. Description of emergency;
D. Conditions that may require special rescue equipment, such as confined spaces; excavations, and elevated work platforms;
E. Potential chemical hazards and recommended PPE; and
F. Emergency decontamination procedures.

7.5.3 The SSHC will require **protective equipment and clothing** for emergency responders as follows:

A. IF abatement activities are in progress, THEN emergency response personnel will don pre-deployed protective equipment and clothing. Protective equipment and clothing will be available at the decon trailer (per Section 7.3) and will be donned under the direction of the SSHC or designee.
B. IF abatement activities are NOT in progress or are suspended AND the SSHC or designee determines that health and environmental hazards are controlled, THEN emergency response personnel do NOT have to don pre-deployed protective equipment and clothing EXCEPT general construction safety equipment such as hard hats and safety glasses when necessary to ensure their safety.

7.5.4 The SSHC or designee will **escort** emergency response personnel to the location of the emergency and will continue to guide emergency services personnel during response activities to the extent feasible. The objective is to allow emergency response personnel to focus their attention on the emergency with an understanding of current site conditions and hazards.

7.5.5 If necessary, the SSHC or designee will assist emergency response personnel in **emergency decontamination procedures.** Unless otherwise specified by the SSHC or designee when emergency response personnel initially report to the decontamination trailer, emergency decontamination procedures will consist of removing disposable PPE and ensuring that visible contamination is removed from personnel and equipment. Outer PPE will be washed prior to removal when grossly contaminated with toxic or corrosive materials. If decontamination facilities are destroyed, fireman will be rinsed in makeshift decontamination facilities using plastic sheeting (or equivalent) to prevent runoff.

7.6 Fire/Explosion Response Plan

All fires or explosions must be reported to the O'Brien & Gere CSC. A fire that CANNOT be readily extinguished with a fire extinguisher will be considered major and will require evacuation of the work area personnel to *Safe Refuge* areas per Section 7.4 of this HASP. However, the SSHC or designee may only approach fires/explosions to the extent that fire safety considerations allow. If personal injuries result from any fire or explosion, the procedures outlined in the *Personal Injury Response Plan* (see Section 7.8) will also be followed.

7.7 Personal Injury Response Plan

7.7.1 Accidents

Treatments for minor injuries will be provided on site using available first aid supplies. In the event of serious injuries, first aid should be administered by any available personnel on site who are certified in basic first aid and / or CPR after obtaining the permission of the injured party. Major injuries, including puncture wounds to the head, chest and abdomen, serious head / spinal column injuries, and loss of consciousness due to heat stress must be treated at the hospital. To the extent feasible, personnel with major injuries will undergo emergency decontamination. All other injuries require standard decontamination.

7.7.2 Chemical Exposure

Personnel having **skin contact** with contaminated liquids or soils shall be flushed with water and any wet or soiled clothing removed. These personnel shall be observed by the SSHC or designee to ascertain whether there are any symptoms resulting from exposure. If there exists any visible manifestation of exposure such as skin irritation, project personnel will be examined by a physician. Episodes of obvious chemical contamination are to be reviewed by the SSHC or designee to determine whether changes are needed in work procedures.

If **inhalation** occurs, personnel will be removed from the contaminated atmosphere, provided first aid/CPR, and transported to the hospital if appropriate.

If **ingestion** occurs, personnel will be evaluated by a physician.

7.8 Spill Control Plan

A major spill is not anticipated at this site. Should a spill of any type occur, the SSHC or designee should report the spill immediately to the Former Jarl Extrusion Contact and notify spill response personnel. On-site personnel should immediately secure the area to

prevent unauthorized entry into the spill area. The SSHC or designee must evaluate the extent of the hazard(s) and if available, utilize engineering controls and proper safety equipment to contain the spill until response personnel are on-site. If the chemical spill may cause fire, explosion, death, or serious injury, then the SSHC or designee should initiate the *General Emergency Response Plan* in Section 7.5.

7.9 Emergency Reporting

Any emergency or accident will be reported to the SSHC and Former Jarl Extrusion . The O'Brien & Gere CSC will review all emergency or accident reports and may further investigate any such report if necessary. The O'Brien & Gere CSC will see that the area officer of OSHA is notified within 8 hours should the emergency cause three (3) or more personnel to be injured and transported to the hospital, or if there is a fatality.

7.9.1 Injury / Illness

An ***Accident Investigation Form*** (Attachment 10) must be completed for all injuries or illnesses, even if they appear minor. The form must be completed or reviewed by the SSHC or designee. It will include, but is not limited to, the nature of the problem, time, location, and corrective actions taken to prevent recurrence. *This report must be completed and sent to the O'Brien & Gere CSC and Former Jarl Extrusion within 24 hours.*

7.9.2 Incident Report

Upon occurrence of a severe injury and any fire, explosion, or other property damage in excess of $1,000, the SSHC or designee must notify the O'Brien & Gere CSC within 24 hours and submit an ***Incident Report*** within three days. The CSC may assist in writing the ***Incident Report*** which should be organized in the following format:

A. Background Information (Facts) - List information in chronological order. Information should consist of first-hand observations and events that are known to have occurred. Include events leading up to the incident and through emergency response activities.

B. Analysis - Describe what appears to have happened as supported by the background information.

C. Causal Factor(s) - Identify unsafe conditions or acts which directly resulted in the incident.

D. Contributing Factors - Identify unsafe conditions or acts which were necessary for the incident to occur but did not directly cause the incident.

E. Recommendations - Assign each recommendation to the appropriate person(s) along with completion dates. Include recommendations to improve emergency response when appropriate.

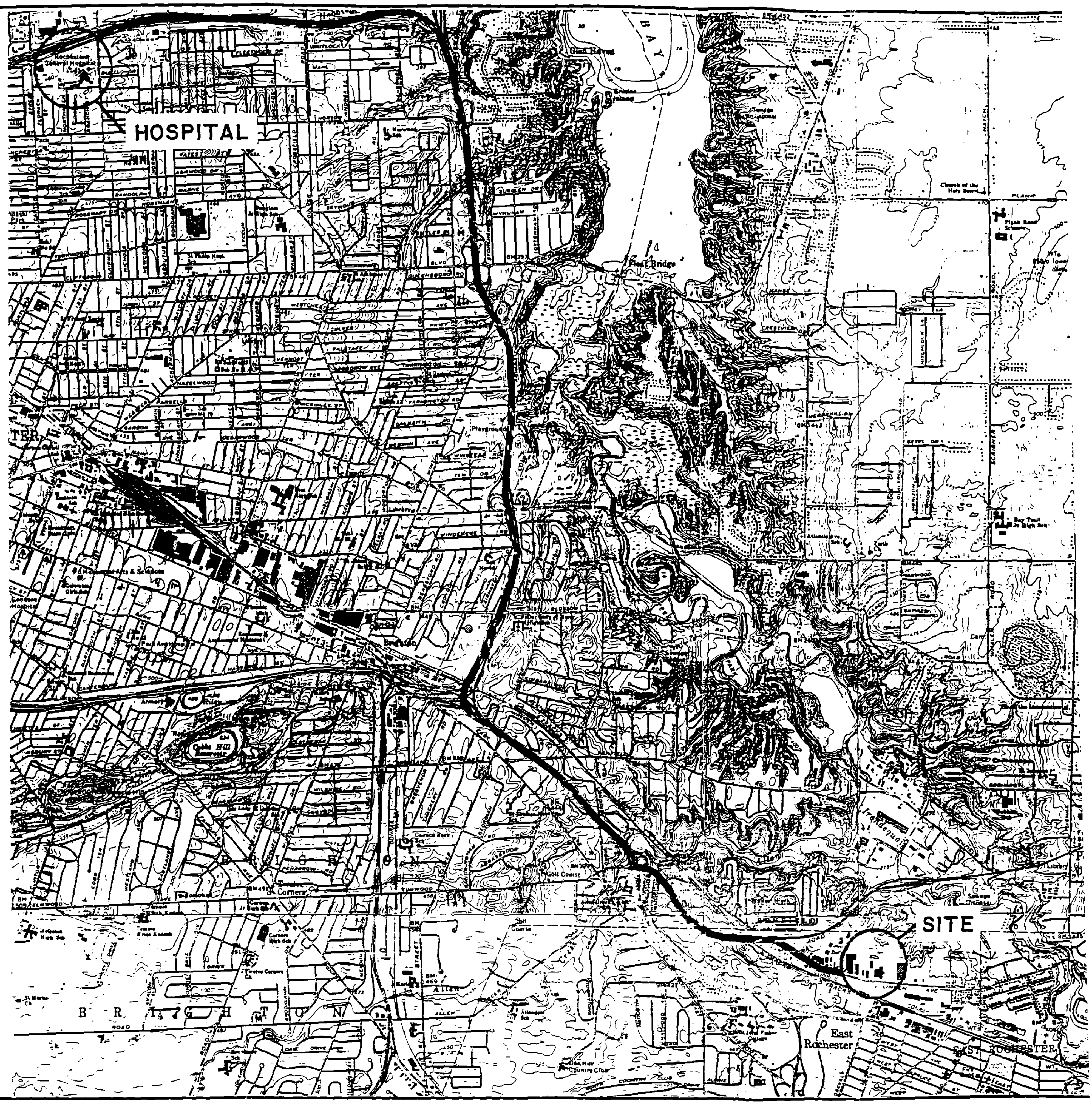
7.10 Natural Hazards

Lightning storms, hurricanes, and tornadoes, all of which are obviously unavoidable and uncontrollable, may be treated as a natural disaster. In the event of severe weather conditions, all site work may be halted by the SSHC or designee. Site evacuation may take place and the site shall be secured to the extent possible.

7.11 Restoration and Salvage

After an emergency, prompt restoration of utilities, fire protection, equipment, security equipment, medical supplies, and other equipment will reduce the possibility of further loss. Temporary systems may have to be implemented until permanent systems are back on-line.

FIGURES


HOSPITAL
SITE
BAY
East Rochester
EAST ROCHESTER

ATTACHMENTS

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 1

Pre-Work Briefing

File Location: G:\OBGSS\DIVISION\H&S\FORMS\ATTACHMT\1PREWORK.FRM
Revised: December 12, 1997

Client:	
Project Name:	
Project Location:	
SSHC:	
Main Points of Briefing:	

This is to certify that I have read, fully understand, and agree to comply fully with applicable Health and Safety Plans furnished to me by O'BRIEN & GERE TECHNICAL SERVICES, INC., and that I will abide by all health and safety standards, regulations and applicable site rules wether it be Federal, State, Local or company policy. I have been briefed on the activities that are and will be conducted on this site and understand completely.

Nº	Print Name	Signature	Company	Date

-- Have EACH employee sign this form before they begin work on site --

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 2

Air Monitoring Log

LEL, O_2, Dust & VOCs

File Location: G:\OBGSS\DIVISION H&S FORMS\ATTACHMT 2\AIR-MON.FRM
Revised: December 12, 1997

Page ____ of ____

Client:		Date of Sampling:	
Project Name:		Approx. Temp Range:	
Project Location:		Approx. Wind Dir:	
Job Nº:		Weather Conditions:	
Instrument Used:			
Instruments Serial Nº:			
Sampler/Monitor Name:		Signature:	
SSHC Review:		Signature:	

Site Activities:	
Work Area Activities:	
Level of Protection (specify PPE) in Sampling Area:	

	Time (Hrs)	Location	% LEL	% O_2	Dust (mg/m³)	VOC (ppm)
1		Background or Upwind Level				
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

-- Keep 1 copy of Air Monitoring Result on site for the project duration --

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 3

Air Sampling Data & Chain of Custody Form

File Location
Revised December 12, 1997

Client Name:				Project Location: (city/state)					Project Nº:	
Project Name:									Date of Sample:	
Pump Type:				Pump Manufacturer:					Pump Model:	
Pump Serial Nº/ID		Pre-Cal	Post-Cal	Average	Sample Start Time	Sample End Time	Sample Duration	Volume of Sample	Shift Duration	COMMENTS - Include Reason for Sampling, Operations, and Processes
1										
2										
3										
4										
5										
							Date Analysis Required			

Sample Nº/ID		Sample Media	Person (name & SSN) OR Sample Location	Type of Analysis Required
1				
2				
3				
4				
5				
Sampler(s):			Signature, Date, Time	

Relinquished by		Date		Time	
Received by		Date		Time	
Relinquished by		Date		Time	
Received by		Date		Time	

Please return the original, signed results to:
Corporate Health & Safety
O'Brien & Gere Technical Services, Inc.
5000 Brittonfield Parkway, P.O. Box 5240
Syracuse, New York 13057
Phone: 315/437-6400 x-2818
ATTN: Jeff Parsons and Chris Hewison

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 4

Entry/Exit Log

File Location: G:\OBGSS\DIVISION\H&S\FORMS\ATTACHMT\ENTRYLG.FRM
Revised December 12, 1997

Project Name		Date	
Project Location		Job №	

	Name	Company	Time In	Time Out	Reason On-Site
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 5

Qualitative Fit Test

File Location.
Revised: December 4, 1998

Employee Name:			
Social Security Nº:			
Company:			
Respirator Brand:			
Respirator Model:		Size:	
Procedure:	❑ Irritant Smoke (use P100 filter)	❑ Banana Oil (use OV cartridge)	❑ Other:

NOTE 1: *Conduct each of the following tests for approximately 1 minute. Failure in any 1 of the following exercises indicates unacceptable respirator fit.*
NOTE 2: *NO fit test may be conducted if facial hair interferes with the face to face piece seal.*
NOTE 3: *A fit test enclosure or tent must be used with the banana oil test. Do NOT use the tent for half face respirators when fit testing with irritant smoke due to the potential for eye irritation.*
NOTE 4: *When using irritant smoke outside a test chamber, make 3 passes around the edge of the respirator with the smoke test tube 6" to 12" from the respirator. After the passes with the irritant smoke tube, begin the excersises. Ensure that the respirator is exposed to irritant smoke during the exercises.*

Exercises (1 minute each unless indicated otherwise)	**Pass**	**Fail**
Positive and negative fit test		
Breath normally		
Turn head side to side and recite the alphabet		
Nod head up and down and recite the alphabet		
Jog in place		
Grimace - smile then frown for 15 seconds		
Breath normally and read the following *Rainbow Passage* developed by OSHA:		

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

Test performed by:		Date:	
Signature:			

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 6

Soil Analysis Checklist

File Location:
Revised: December 12, 1997

Client:		Today's Date:	
Project Name:		Job Nº:	
Project Location:		Weather:	
Competent Person:			
Where was the sample taken from:			
Excavation Length, Depth & Width	L:	D:	W:

VISUAL TEST				
Particle type	❑ Fine grained (cohesive)	❑ Granular (sand/silt or gravel)	❑ Other:	
Water conditions	❑ Wet	❑ Dry	❑ Seeping Water	❑ Surface Water Present	❑ Submerged
NOTES:				

Yes	No	N/A	DESCRIPTION
			Layered soils dipping into excavation? If *Yes*, describe:
			Excavation exposed to vibrations? If *Yes*, from what:
			Previously disturbed soils?
			Crack like openings or sprawlings observed?
			Underground utilities? If *Yes*, what type:
			Layered soils? ***Note:*** *The least stable layer controls the soil type.*

MANUAL TEST					
Plasticity	❑ Cohesive	❑ Non-cohesive	Dry Strength	❑ Cohesive (broken w/ difficulty)	❑ Granular (crumbles easily)
Wet shake	❑ Water comes to surface (granular material)			❑ Surface remains dry (clay material)	

THUMB TEST *NOTE: Used to estimate unconfined compressive strength of cohesive soil. Performed on undisturbed soils.*

Test performed	❑ Yes	❑ No	❑ N/Ap, Explain:

Soil indented by thumb with very great effort	❑ Type A
Soil indented by thumb with some effort	❑ Type B
Soil easily penetrated several inches by thumb with little or no effort. *NOTE: If soil is submerged, seeping water, subjected to surface water, runoff, exposed to wetting.*	❑ Type C

PENETROMETER or SHEARVANE TEST *NOTE: Used to estimate unconfined compressive strength of cohesive soils:*

Test performed	❑ Yes	❑ No	Device Used/Serial Nº:

Soil with unconfined compressive strength of 1.5 tsf or greater	❑ Type A
Soil with unconfined compressive strength greater than 0.5 tsf and less than 1.5 tsf	❑ Type B
Soil with unconfined compressive strength of 0.5 tsf or less. If soil is submerged, seeping water, subjected to surface water, runoff, exposed to wetting	❑ Type C

NO soil is type A if fissured, subject to vibration, previously disturbed, layered dipping into excavation on a slope of 4h:1v

SOIL CLASSIFICATION			
❑ Stable Rock	❑ Type A	❑ Type B	❑ Type C

SELECTION of PROTECTIVE SYSTEM (Refer to Appendix F of 29CFR1926)			
❑ Sloping (Appendix B) specify angle: _____	❑ Timber shoring (Appendix C)	❑ Trench shield Max depth in this soil:	❑ Hydraulic shoring (Appendix D)

-- Keep 1 copy of EACH Soil Analysis Checklist on site for the project duration --

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 7

Daily Excavation Checklist

File Location
Revised December 12, 1997

Client:		Today's Date:	
Project Name:		Approx. Temp	
Project Location:		Approx. Wind Dir	
Job Nº:		SSHC:	
Excavation Depth and Width:		Soil Classification:	
Protective System Used:			
Activities in Excavation:			
Competent Person:			

Excavation > 4' deep? ❑ Yes ❑ No If *Yes*, fill out a *Hot Work & Confined Space Entry Permit* prior to any personnel entering the excavation. Refer to Section 4 of the Corporate Health and Safety Manual or the Site-specific Health & Safety Plan for the applicable form.

*NOTE: Trenches over 4' in depth are considered excavations. Any items marked **NO** on this form **MUST** be remediated prior to any employees entering the excavation. Review Excavation from the Corporate Health & Safety Manual for guidance.*

Yes	No	N/A	Description
			GENERAL
			Employees protected from cave-ins and loose rock/soil that could roll into the excavation
			Spoils, materials, and equipment set back at least 2 feet from the edge of the excavation
			Engineering designs for sheeting and/or manufacturers data on trench box capabilities on site
			Adequate signs posted, and barricades provided
			Training (i.e, Toolbox meeting) conducted with employees prior to employees entering excavation
			UTILITIES
			Utility company contacted and given 24 hrs notice and/or utilities already located and marked
			Overhead lines located, noted, and reviewed with operator
			Utility location reviewed with operator, and precautions taken to ensure contact does not occur
			Utilities crossing the excavation supported, and protected from falling materials
			Underground installations protected, supported or removed when excavation is open
			WET CONDITIONS
			Precautions taken to protect employees from water accumulation (i.e., continuous dewatering)
			Surface water or runoff diverted/controlled to prevent accumulation in the excavation
			Inspection made after every rainstorm or other hazard-increasing occurrence
			HAZARDOUS ATMOSPHERE
			Air in the excavation tested for oxygen deficiency, combustibles, or other contaminants
			Ventilation used in atmospheres that are O_2 rich or deficient and/or contains hazardous substances
			Ventilation provided to keep LEL below 10%
			Emergency equipment available where hazardous atmospheres could or do exist
			Safety harness and lifeline used
			Supplied Air necessary (if **Yes**, contact CHS prior to entry)
			ENTRY & EXIT
			Exit (i.e., ladder, sloped wall) no further than 25 feet from ANY employee
			Ladders secured, and extended 3 feet above the edge of the trench
			Wood ramps constructed of materials of uniform thickness, cleated together on the bottom.
			Employees protected from cave-ins when entering or exiting the excavation

-- Keep 1 copy of EACH Daily Checklist on site for the project duration --

NOTE: Separate forms are required for each excavation.

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 8

Hot Work & Confined Space Entry Permit

File Location: G:\OBGSS\DIVISION\H&S\FORMS\ATTACHMT\8PERMIT FRM
Revised April 13, 1998

Project Name:		Project & Phase Number:	
Location of Work:		Building/Floor/Excavation:	
Description of Work to Be Performed: (check all that apply)	❑ Permit-Required Confined Space Entry ❑ Hot Work ❑ Non-permit Space Evaluation (complete this form and conduct the appropriate air monitoring)		
Special Safety Precautions to Be Observed:			
Description of Confined Space (if applicable)			

HAZARD COMMUNICATION: Work crew supervisor and all work crew personnel have been notified of chemical and physical hazards in the work area. MSDS location, safety equipment required and emergency instructions. Work personnel have been instructed to report any unsafe or unusual conditions. A pre-entry briefing is required for confined space entry.

CHECK X EACH QUESTION: YES, NO or Not Applicable	YES	NO	NA
* Have valves been properly set, locked and tagged?			
* Has electric been locked open or in safe position? Test local starter button.			
* Has piping been disconnected or blanked off?			
* Is adjacent equipment safe?			
* Has vessel/piping been drained, cleaned or purged?			
* Can sparks ignite material in vicinity, sewers, lower floors?			
* Is a stand-by fire watch required? NAME:_____			
* Has a pre-entry briefing been conducted? TIME: _____:_____	X		
* Has fall protection been provided for work above 6' ?			
* Has "Soil Analysis Check List" been completed for excavations?			
* Has "Daily Excavation Check List" been completed for those > 5' deep?			
* Is Gas or air test necessary? Continue every _____ hrs.			

CONFINED SPACE ENTRY
Potential Hazards:
Entry Supervisor:
Attendant(s):
Entrant(s):

SAFETY EQUIPMENT REQUIRED: CHECK OFF IF REQUIRED		
Goggles	Half-face Respirator	Vapor proof Ext. Light
Face Shield	Full-face Respirator	Ventilation Equipment
Un-coated Tyvek® Suit	Air-line Respirator	Fire Extinguisher
Coated Tyvek® Suit	Safety Belt/Harness	Water hose
Vinyl Suit	Ladder/Scaffold	Barriers & Signs
Acid Suit	Lockout/tag out	Communication Equipment
Plastic Apron	GFCI	
Nitrile or Vinyl Gloves	Grounding Equipment	
Rubber Boots	Non-sparking Tools	

RESCUE PROCEDURES
Equipment to use and numbers to call:
Monitoring Procedures:
Communication Procedures:
❑ Radio ❑ Verbal ❑ Other:

Lockout description	# Locks/# Tags	Air Tests	PEL	Required?	Pre-Entry	Initial	1 Hr	2 Hr	3 Hr	4 Hr	6 Hr	8 Hr
		Oxygen	19.5%-23%									
		LEL	10%									
		CO	35 ppm									
		H_2S	10 ppm									

Are Lockout Tagout Procedures Necessary?	Yes - No	Lockout/Tagout protection has been removed?	Yes - No - N/Ap
Work Completed prior to closing out permit?	Yes - No	Equipment can safely be placed into service?	Yes - No - N/Ap
Protection removed by: (name)		Time: ____:____	Date: ____/____/1998

Permit Authorization		PERMIT Duration
Contractor:	OBG Tech (signature)	
Subcontractor:	(name of sub. and signature)	From: Date___/___/___ Time____:____
Subcontractor:	(name of sub. and signature)	To: Date___/___/___ Time____:____

-- Keep 1 copy of EACH permit on-site for the project duration --

Return a Legible Copy to Corporate Health and Safety on the day of Expiration. Phone: 315-437-6400 - Fax:: 315-437-9800

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 9

Safety/Toolbox Meeting

File Location
Revised: December 12, 1997

Client:		Project Nº:	
Project Name:		Today's Date:	
Project Location:			
Conducted By:			
Meeting Topic:			

	Employee Signature	Company	Social Security #
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Main Points of Meeting:

NOTE: File in a three (3) ring binder (or equivalent) and keep for the project duration. All Safety/Toolbox Meeting Forms must be sent to Corporate Health and Safety upon project demobilization.

O'BRIEN & GERE
TECHNICAL SERVICES

Accident Investigation Form

File Location I:\OBGSS\DIVISION\H&S\FORMS\ATTACHMT 10ACCID DOC
Revised January 19, 2000

Attachment 10

PROJECT INFORMATION			
Corporate Health & Safety to complete:	❑ Restricted Workday (_____ days)	❑ Near Miss	
❑ First Aid	❑ Lost Workday (_____ days)	❑ Property Damage >$1,000	
❑ Med. Treatment Only	❑ Fatality	❑ Other:_____	
Client:			
Client H&S Contact:			
Project Name:			
Project Location:			
Project Manager:		Site Supervisor:	
Project Supervisor:		Foreman:	
Project Nº:		SSEC:	
Project Phone Nº:		Today's Date:	

INJURED PERSON INFORMATION			
Name of Injured:		Employment Category:	
Home Address:		❑ Craft ❑ Temporary/Contract ❑ Regular Status Employee ❑ *Subcontractor *Name of Company:	
Soc - Sec - Num:		Experience w/ OBG	years months
Age and Gender:	M / F _____ yrs	Total Experience:	years months

ACCIDENT INFORMATION			
Date and Time (hrs) of Accident:			
Nature of Injury, and Part of Body:			
Specific Location of Accident On-site:			
Specific Task at Time of Accident:			
Occupation/Craft at Time of Accident:			
Employee was Working:	❑ Alone ❑ With Crew or Fellow Worker ❑ Other		
Type of Supervision:	❑ Direct ❑ Indirect ❑ None ❑ Other:		
Supervisor at Time of Accident:			
Witness #1 Name (get written statement)		Witness Initials:	
Witness #2 Name (get written statement)		Witness Initials:	
Witness #3 Name (get written statement)		Witness Initials:	

FULLY COMPLETE THIS FORM AND SEND TO THE CORPORATE SAFETY MANAGER WITHIN 24 HOURS

cc: Project Manager, Legal Department, _____, _____

DESCRIBE HOW THE ACCIDENT OCCURRED

Describe in **detail**, and in chronological order, the events that lead to the accident, and how the accident occurred.

CAUSAL FACTORS

Check all that apply and identify corrective actions for each factor.

PROCEDURES	COMMUNICATION	MANAGEMT/ORGANIZATN	HUMAN FACTORS
❑ Not available	❑ Misunderstood verbal directions	❑ Inadequate work planning	❑ Lack of experience or skill
❑ Difficult to use / understand	❑ No communication or untimely	❑ Unclear reporting relationship	❑ Infrequent performance
❑ Use of procedure was not required but should be	❑ Standard terminology or signals not used or are misunderstood	❑ Unclear assignment of responsibility or authority	❑ Operating equipment without authority
❑ Followed Incorrectly	❑ Interference from noisy environm't	❑ Improper delegation	❑ Operating equipment unsafely
❑ Not followed	❑ Notifications late or not provided	❑ Inadequate audits/inspections	❑ Taking unsafe position/posture
❑ Inadequate details	❑ Job/task safety analysis not reviewed with personnel	❑ Inadequate incident reporting	❑ Poor judgement or Inappropriate risk taking
❑ Situation not covered		❑ Inadequate incident investigatn	
❑	❑	❑ Corrective actions not complet	❑ Physical impairment (explain)
WORK ENVIRONMENT	**EQUIPMENT & TOOLS**	❑ Corrective actions inadequate	❑ Drugs/alcohol (explain)
❑ Housekeeping poor	❑ Wrong equipment/tool for the task	❑ Inadequate purchasing	❑
❑ Hot / Cold	❑ Defective equipment/tools	❑ Wrong person assigned to job	❑
❑ Poor lighting	❑ PM not done or inadequate	❑ Lack of supervisor knowledge	**TRAINING**
❑ High Noise	❑ Inadequate / removed guards	❑ Inadequate/lack of safety mtgs	❑ Training not provided
❑ High Radiation/Contaminatn	❑ Inadequate isolation (LOTO)	❑ Inadequate control of change	❑ Training inadequate
❑ Cramped quarters	❑ No inspection of tools / equipment	❑ Mgmt resources inadequate	❑ Did not attend training
❑	❑	❑ Excessive work hours (fatigue)	❑ Training not appropriate for the job or task
ENGINEERING/DESIGN	❑	❑ No or Inadequate enforcement	
❑ Inadequate technical design	❑	❑ No pre-task safety analysis	❑
❑ Inadequate specifications	❑	❑	❑
❑ Inadequate change mgmt	❑	❑	❑

CORRECTIVE ACTIONS

List the corrective actions taker to minimize the possibility of a similar accident from occurring in the future. Assign specific individuals and completion dates for each corrective action. The "Safety Audit Closeout" form can be used to help track completion of corrective actions.

Employee: (print)		Sign:		Date:	
Prepared by: (print)		Sign:		Date:	
CHS Review: (print)		Sign:		Date:	

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 11
Safety Audit Checklist
File Location:
Revised: December 17, 1997

Client:			
Project Name:			
Project Location:			
Site Supervisor/Foreman:		Date of Audit:	
Project Manager:		Job Nº:	
SSHC:		Project Phone Nº:	
Auditor:		Auditor's Signature:	

Na	Y	No	Description	NA	Y	No	Description
GENERAL							
			Posting of OSHA Poster				Posting of Emergency Numbers
			Frequent Job site Inspections				Toolbox Safety Meetings
			First Aid Supplies w/ BBP Kit				First Aid/CPR trained person on-site
			Directions to Hospital Posted				Drinking Water
			Toilet Facilities				Washing Facilities with soap and water available
HOUSEKEEPING							
			Job site looks neat				Raw materials stocked orderly
			Walking surfaces neat and clean				"No Smoking" appropriately posted
			Designated smoking areas				Receptacles for cigarette butts
			Trash emptied regularly				Materials not in danger of falling
			Broken pallets properly disposed				Disposal area neat
			Nails removed from forms/scraps				
PPE							
			Hard hats in use				Respirators used and selected properly
			Steel-toed boots in use				Respirators stored and cleaned properly
			Eye/Face protection used when needed				Cartridges changed adequately
			Hearing protection used when needed				Fit-tests for respirators are satisfactory
			Gloves/protective clothing used as needed				Adequate PPE available & regularly inspected
			Lifelines & harnesses used when necessary				Proper PPE decon methods used
			Fall protection used above 6 feet				Proper disposal of used PPE
FIRE PROTECTION & EMERGENCY PROCEDURES							
			Proper fire extinguishers available & charged				Fire extinguishers inspected, tagged
			Location of extinguishers accessible, obvious				Employees know procedures
			No flammable materials near exit doors				Used rags in metal cans w/covers
SIGNS, SIGNALS, & BARRICADES							
			Unsafe tools tagged				Lockout/Tagout Procedures in use

NOTES:_____

Na	Y	No	Description	NA	Y	No	Description
HAZARD COMMUNICATION							
			List of Hazardous Chemicals				MSDS's for all chemicals
			All chemicals properly labeled				
HAND AND POWER TOOLS							
			Equipment in good shape				Cords not fastened in damaging way
			Damaged tools removed from service				Attachment and plug always match
			Grounding is not prevented				Adapters are not used to prevent grounding
			Tools don't have frayed wires/broken prongs				GFCIs used in wet (outside) or metallic areas
			Extension cords are not frayed				Point of operation guarded
			Positive "on-off" switch on sanders, etc.				Constant pressure switch on circular saws
			Momentary on-off switch on drills/saws, etc.				No hand tools with mushroomed heads
			No broken/fractured handles on hammers etc.				No worn or bent wrenches
			Jacks in good condition				Handles on tools wedge tightly
			Tools stored securely when not in use				Double insulated tools used
			Temporary lights guarded or deeply recessed				Guards in place
ELECTRICAL SAFETY							
			Precautions when working near overhead lines				Non-metal portable ladders near electricity
			Non-conductive head protection				Signs and tags to warn about electrical hazards
			Electrical panels clearly identified				All panels grounded
			Conduit tightly connected to junction/outlet box				Motors free and clean of excessive dirt and oil
			Portable lights equipped with proper guards				Explosion proof fixtures in designated areas
			Drums of flammable solvents grounded				Lockout/Tagout procedures are followed
			Splices mechanically and electrically secure				Splices insulated equivalent to conductor
			Flexible cord not used for fixed wiring				Temporary wires at ceiling height or protected
			Electrical checked for exposed wires				Flexible cord protected from pinching, corners
WELDING AND CUTTING - HOT WORK							
			Hoses neatly stacked away from traffic				Hoses checked for leaks, damage, connections
			No splices within 10 feet of the holder				Equipment degreased prior to welding
			Welding machine ground checked before use				Manufacturers labels and instructions in place
			Welders wear leather or cotton (long sleeves)				Goggles and eyeshades used as needed
			Respiratory protection used				Hot work areas isolated from employee traffic
			Portable screens surround welding areas				Flammable materials removed from work area
			Fire extinguishers available in hot work areas				Fire watch in attendance
			Hot work area well ventilated				Torches inspected at beginning of shift
			Torches lighted by friction lighters				Hot work permit properly completed
COMPRESSED GASES							

NOTES: _____

Na	Y	No	Description	NA	Y	No	Description
			Compressed gas cylinders stored properly				Oxygen, gas cylinders or combust. sep. by 20 ft
			Contents marked on all cylinders				Cylinders separated by contents
			Cylinders chained (secured from tipping)				Valve protection tight on all cylinders
			Cylinders away from heat producing devices				"No Smoking" signs posted in storage area
			Storage area well ventilated				Hoses not interchangeable between fuel and O_2
			Cylinders, fittings, etc. free of oil and grease				
CONFINED SPACES							
			Entry permit procedures followed				Lockout/Tagout procedures followed
			Air monitoring performed				Non-sparking tools used
			Ventilation used				Respiratory protection used
			Harness, lifeline, and hoisting apparatus used				Backup rescue team notified
			Entry permit properly completed/closed out				
STAIRS							
			Toeboards at least 4 inches high				Treads have non-slip material
			Warning sign/paint to indicate level change				Fixed stairways have minimum width of 22"
			Stairs with four or more risers have railings				Stair railings solidly anchored
			Stair railings extend to last step				No worn or damaged stair treads
			Clearance at least 3" around railing				Lighting adequate on stairways
			No items left on stairs				Provided where there is regular traffic (18" rise)
			Angle of rise between 30° and 50°				
LADDERS							
			Strong enough for intended use				Ladders have non-slip safety feet
			Safety Feet in good condition				Ladders long enough for job
			Ladders tied at top of structure for security				Unsafe ladders removed from area at once
			Rungs free of grease and oil				Metal ladder steps have non-slip materials
			Only wooden ladders used for electrical work				Wooden ladders treated clear not paint
			Only one person on a ladder at a time				Helpers hold ladders on high jobs
			Ladders used extend above roof level 3 ft				Boxes and chairs not used to reach high areas
			Ladders not in front of doors, aisles, etc.				Workers do not stand on top 3 rungs
			Distance out equals ¼ ladders height				Stepladders legs checked they are fully opened
			Distance between rungs not exceeding 12"				Length of rungs 16" minimum
			Distance around rung is 7"				Step ladder not used as straight ladder

NOTES:_____

Na	Y	No	Description	NA	Y	No	Description
SCAFFOLDS							
			Working platforms at least 2 feet wide				Scaffolds have 4" toeboards and edges
			Scaffold inspected daily prior to use				Scaffold on sound footings and bases
			Scaffolding free of slippery conditions				Barricades installed around scaffold areas
			All scaffolds over 6' high have guar/mid rail				Planking overlapped 12"
			Planking at least 6 inches over end supports				Secured and rigidly braced
			Access ladders used				Materials only for immediate use on scaffold
			Employees tied off on suspend scaffold				
EXCAVATIONS							
			Soil Analysis Checklist completed				Workers protected from cave-ins
			Daily Excavation Checklist completed				Air monitoring over 4'
			Egress w/in 25' of employees in trenches				Slope > 1.5/1 or soil data used
			Materials more than 2' back from edge				Underground installations located and marked
			Surfaces encumbrances removed or supported				Prevention of vehicles from falling into trench
			Employees not exposed to falling loads				Adjacent structures supported
			No water accumulation				Barricades when unattended
			Bridges/walkways w/standard rails				Competent person on-site
MECHANIZED EQUIPMENT							
			Seat belts installed and used				Rollover protection installed
			Equipment stored properly when not in use				Equipped with horn
			Fueling at safe locations				Fire extinguishers on every piece
			Blades and buckets lowered when not in use				Backup alarms operating
CRANES AND HOISTS							
			Inspections on cranes documented				Load rating chart in cab
			Hand signals posted				Swing radius of crane guarded
			Overhead power lines protected				Ropes, slings, chains, hooks inspected daily
			Safe working loads determined				"U" Bolt clips installed properly
			Allowable wear in chains not exceeded				Bent hooks or spring hooks not used
			Safety hooks used				
WALL OPENINGS							
			Openings, holes, chutes, skylights protected				Standard rails provided
			Floors over 4 ft. high guarded				Screens provided where necessary
HEALTH & SAFETY MONITORING							
			Real-time air monitoring conducted properly				Records of equipment calibration maintained
			Personal air monitoring conducted as needed				Records of air monitoring maintained
			Heat/Cold stress monitoring when necessary				Weather conditions recorded adequately
HEALTH & SAFETY PLAN							
			Copy accessible to all employees on site				Safety and health hazard analysis completed

NOTES:_____

O'BRIEN & GERE
TECHNICAL SERVICES

ATTACHMENT 11
Safety Audit Checklist
File Location
Revised December 17, 1997

Na	Y	No	Description	NA	Y	No	Description
			Organization structure described				PPE selection and use is clearly outlined
			Training assignments outlined				Air monitoring procedures are adequate
			Medical surveillance requirements outlined				Decon procedures are adequate
			Site Control procedures defined				Confined space entry procedure is adequate
			Emergency Response procedures outlined				Buddy system in use
			Spill containment plan is adequate				Effectiveness of HASP evaluated routinely
			All employees signed-off on HASP				Hospital route identified in HASP
TRAINING							
			Pre-entry briefing documented				OSHA Supervisor training is documented
			OSHA 40 or 24 hour training is documented				OSHA 8-hour Refresher training is documented
SITE CONTROL							
			Zones delineated and obvious to all on-site				Decontamination areas established and obvious
SITE COMMUNICATIONS							
			Internal communication procedures estab.				External communication procedures established
DECONTAMINATION PROCEDURES							
			Areas established to remove gross contamination from heavy equipment				Area established to remove gross contamination from equipment, tools, and personnel
			Drop cloths for equipment (i.e. hand tools)				Disposal bin provided for used PPE
			Long handled bristled brushes for decon				Decon water/solutions properly disposed
			Personnel follow decon procedures in HASP				
EMERGENCY RESPONSE							
			Safe distances established				Refuge areas established
			Emergency PPE identified				First aid/BBP kit present
			Fire Extinguishers provided				Emergency eyewash kit present
			Emergency shower provided				Emergency facilities available

*NOTE: When audits are conducted by Corporate Health and Safety (CHS) personnel, safety violations (i.e., items marked "No") will be classified as class 1, 2 or 3 as per **Auditing** of the CHS Manual, and forewarded to the Project Manager and Vice President associated with the project.*

Reviewed By: _____ _____
(Site Supervisor/Foreman signature) (date)

Reviewed By: _____ _____
(Site Safety & Health Coordinator) (date)

NOTES: _____