HEALTH AND SAFETY PLAN

CSMRI SITE REMEDIATION

TABLE OF CONTENTS

.

APPENDICES

HEALTH AND SAFETY PLAN

CSMRI SITE REMEDIATION

1.0 INTRODUCTION

This *Health and Safety Plan* (HSP) governs the health and safety of New Horizons Environmental Consultants, Inc. (New Horizons) employees, subcontractors, and visitors during the conduct of activities performed at the former CSMRI facility located in Golden, Colorado. The Site is defined as the fenced area and the Clay Pits area (see Sampling and Analysis Plan Figure 1) but excludes the former settling pond area (previous cleared by the U.S. Environmental Protection Agency). Compliance with this plan is required for all New Horizons and subcontractor employees. All field personnel are required to be familiar with the contents of this HSP, and to formally review the contents prior to implementation. As evidence of this, all field personnel will sign a HSP Acceptance form as presented in *Appendix A*. The HSP also will be part of the Site Decommissioning Plan.

All subcontractors of New Horizons will be required to perform Site activities in accordance with all applicable federal, state, and local laws and regulations. Subcontractors are solely responsible for supervising their employees and maintaining safe working conditions at the site that meet all applicable regulations.

New Horizons will perform the following activities in conjunction with the Remedial Action tasks at the CSMRI site:

- Implement the Storm-Water Pollution Prevention Plan,
- Monitor and control employee and worker exposure to radioactivity and/or metals during the performance of field operations in accordance with current regulations,
- Excavation and loading (for transport) of material (soil) with elevated metals concentrations and radionuclide activity for disposal at designated and approved disposal facilities,
- Sampling of the removed soil to verify that it meets the disposal facility waste acceptance criteria,
- Perform verification sampling of the site after soil removal is complete,
- Install of ground-water monitoring wells
- Sample ground- and surface-water to demonstrate natural attenuation, and
- Perform various oversight and project management functions including health & safety, radiation safety, and project documentation.

1.1 Purpose

The purpose of the HSP is to establish personnel protection procedures and protocols that will be followed in conducting remediation activities at the CSMRI site. This HSP has been prepared to assign responsibilities, establish personal protection standards, address worker health and safety issues related to site operations, develop safety practices and procedures, and to provide for contingencies that may arise while the field operations are conducted. Prevention of accidents will take precedence over other goals, and every attempt will be made to reduce the possibility of accident occurrence. The HSP applies to all contractors, subcontractors, and visitors at the CSMRI site.

.

1.2 Site Description and History

The 6-acre Site is located on the south side of Clear Creek, east of U.S. Highway 6, in the northeast quarter of the northwest quarter of Section 33, Township 3 South, Range 70 West. The main entrance to the Site is located about 475 feet northwest of the intersection of Birch and 12th Street in Golden, Colorado. A chain-link fence restricts access to the Site, except for a small area located south of 12th Street known as the Clay Pits area.

Prior cleanup activities at the Site have included the removal and stockpiling of material from a former settling pond, off-site disposal of the pond stockpile, building cleanup and demolition, and removal of concrete and asphalt associated with floors and foundations of the former buildings. A soil characterization study was performed during 2002 through 2003.

The Colorado Department of Public Health and Environment (CDPHE) issued a Radioactive Materials License for the Site (License 617-01). The License authorizes storage of NORM, source, and byproduct materials.

2.0 HEALTH AND SAFETY HAZARD ASSESSMENT

2.1 Relevant Constituents

The materials at the Site are not anticipated to present significant health hazards to workers during remedial activities, but do contain low concentrations of thorium, radium, uranium, and metals. The health concerns of potential chemical constituents in the residues are provided below.

2.1.1 Uranium and Uranium-decay Products

Elemental uranium is a silver-white, lustrous, heavy, radioactive metal. It is insoluble in water, alkali and alcohol, but dissolves in acids. Each of the naturally occurring isotopes of uranium are radioactive and decay by specific nuclear transformations. Each of the resulting radium and thorium isotopes also is radioactive. The ^{238}U isotope decay begins a series of nuclear transformations, called the uranium series that ends with the nonradioactive lead isotope, ^{206}Pb.

Biological effects are observed when ionizing radiation strikes living tissue and damages the molecules of cellular matter. Cellular function may be temporarily or permanently impaired from the radiation, or the cell may be destroyed. The severity of the injury depends on the type of radiation, the absorbed dose, the rate at which the dose was absorbed, and the radiosensitivity of the tissues involved. The effects are the same, whether from a radiation source outside the body or from material within. At low concentrations uranium is more toxicologically significant for its properties as a metal than for its radioactivity.

The rates of emission of radiation for different radioisotopes vary considerably. Since biological effects of radiation are determined by the amount of energy absorbed, the time of exposure and rate of exposure must be defined. Monitoring of radiation is essential to determining exposure. Personal monitoring is often achieved with the use of film badges, which develop upon exposure to certain levels or total quantities of radiation. Perimeter (area) monitoring is usually accomplished with survey meters or portable ionization chambers. Air monitoring for this project is discussed in Section 10.0, below.

2.1.2 Metals

Metals in low concentrations also are present in the Site materials. Metals are often adsorbed onto soil particles (either inorganic solids or organic materials) and can be mobilized as particulates (fugitive dust). Inhalation and/or ingestion of contaminated dust represent the most common routes of exposure. The solubility and transport of metals in water is generally dependent upon the speciation of the particular metal.

In those areas where project activities will affect materials contaminated with metals, New Horizons shall employ dust suppression measures to prevent fugitive dust emissions. In addition, on-site workers shall follow "common-sense" personal hygiene requirements including periodic washing of hands to remove any contaminated particulates and a prohibition on eating, drinking, or smoking in contaminated areas.

2.1.3 Other Constituents

It is possible that additional materials may be encountered during project operations. If materials are encountered that pose additional worker health risk, the following procedures shall be followed:

- Work in the immediate area of the release shall cease and the Project Manager (PM) or Site Safety Officer (SSO) / Radiation Safety Officer (RSO) shall be notified immediately,
- The SSO/RSO (or his designated representative) shall evaluate the suspect material for potentially hazardous substances or other constituents. This evaluation may include field monitoring using appropriate instrumentation (i.e., photo ionization detector (PID), explosimeter, etc.) or sampling with subsequent off-site analysis,
- Work in the immediate vicinity of the suspect material shall be suspended until such time as the SSO/RSO (or his designated representative) determines that on-site conditions do not pose a threat to on-site personnel or the general public.

2.2 Physical Hazards

Construction and earth moving activities at the site typically involve a significant number of physical hazards. Heavy equipment operation, excavation operations, buried and overhead utilities, and material and waste handling are all examples of physical hazards which may expose on-site workers to risk of burns, cuts, abrasions, falling objects, heat/cold stress, and noise. Additional information on these hazards, along with others specifically related to certain job tasks, is provided throughout this HSP.

Engineering and administrative controls will be given first priority for minimizing employee exposure to physical hazards. Engineering controls for the site may include the use of back-up alarms, spotters, and aggressive dust control. Administrative controls for physical hazards at the site may include developing work regimens that minimize worker heat stress and material movement procedures that minimize exposure to potentially impacted materials.

When engineering and administrative controls are not feasible, personal protective equipment (PPE) will be used to reduce employee exposure. A detailed discussion of PPE is provided in Section 11.0.

2.3 Fire and Explosion Hazards

Fire and explosion hazards on the site are generally associated with the presence of natural gas utility lines, propane tanks, acetylene tanks, vehicle and equipment fuel tanks, and/or other flammable vapors that may accumulate or otherwise be present on the site.

Personnel will use equipment and procedures that do not create a source of ignition in areas where there may be a possibility of flammable vapors or gases, flammable liquids, dry grass, or other flammable or combustible materials. Vehicles will not be parked or left idling in areas where a possibility of fire or explosion can occur. In accordance with New Horizons policy, no smoking is allowed within work areas.

Emergency Response procedures to be implemented during a fire or explosion are outlined in Section 19.0.

2.4 Biological Hazards

Various insects, such as mosquitoes, wasps, hornets, ants, spiders and bees may be present at the Site. Care should be taken not to locate equipment and clothing in areas prone to support these hazards such as anthills and bushes. Personnel may utilize insect repellent before donning personal protective equipment and while working in areas prone to insects.

Care also should be taken when lifting possible habitats of snakes and spiders such as debris and cover. Field treatment of snakebites should be limited to submerging or covering the bite area with wet ice and/or a cold compress.

3.0 PROJECT RESPONSIBILITIES

This section outlines the individual responsibilities of the key site personnel. All personnel who have a potential for contact with Site materials are subject to this HSP. All personnel are responsible for continuous adherence to the safety procedures during work activities. In no case may work be performed in a manner that conflicts with the intent, stated safety and environmental precautions and procedures, or Standards of Conduct as stated in this HSP. The Project Manager and site Field Supervisor are responsible for ensuring that all site-specific health and safety procedures are fully implemented and followed. All personnel working on or visiting the site will be trained in accordance with the specifications of 29 CFR 1910.120 (HAZWOPER), and the elements of this HSP. The Site Safety Officer / Radiation Safety Officer (SSO/RSO) verifies such training history. The names and telephone numbers for key project personnel are provided in the Table below. A detailed description of key positions is provided in the following sections.

NAME	TITLE	TELEPHONE	
Robert Krumberger	Project Manger	Office Cellular Home	303-647-1055 303-229-6616 303-647-0235
David Barnes	Site Safety Officer / Radiation Safety Officer	Office Cellular	303-932-2220 720-313-8907
David Colburn	Field Supervisor	Office Cellular	303-915-4084 303-915-4084
Linn Havelick	Client Representative for Colorado School of Mines	Office	303-273-3998

3.1 Project Manager

The Project Manager (PM) is responsible for the implementation and oversight of all project activities conducted under the HSP. Health and safety responsibilities of the PM include:

- Ultimate responsibility for all project activities and the implementation of the HSP
- Facilitating implementation of the HSP
- Assisting the Colorado School of Mines with agency interaction
- Consulting with the Field Supervisor and Site Safety Officer regarding health and safety concerns

3.2 Field Supervisor

The Field Supervisor is responsible for oversight of the work and this HSP, and correcting any deficiencies. Health and safety responsibilities of the Field Supervisor include:

- Consulting with the Site Safety Officer regarding health and safety concerns,
- Coordinating emergency response,
- Assisting with tailgate briefings,
- Providing technical guidance for development of health and safety procedures to be used at the work site; and
- Correcting work practices or conditions that may result in injury or exposure to hazardous substances

3.3 Site Safety Officer / Radiation Safety Officer

The Site Safety Officer / Radiation Safety Officer (SSO/RSO) communicates closely and directly with the Field Supervisor. The SSO/RSO duties include, but are not limited to:

- Implementation and oversight of the HSP,
- Initially communicating site requirements to all personnel,
- Issuing the HSP and all approved addenda,
- Performing oversight field operations,
- Performing daily tailgate safety briefings,
- Advising Field Supervisor on all aspects of the site health and safety activities,
- Recommending stoppage of work if any operation threatens worker health and safety,
- Facilitating site specific tailgate briefings, training, and hazard communication training,
- Providing technical guidance for development of health and safety procedures to be used at the work site,

- Determining appropriate personal protective equipment and decontamination procedures,
- Correcting work practices or conditions that may result in injury or exposure to hazardous substances,
- Performing and documenting worker exposure monitoring and area sampling,
- Administering radiation safety program including dosimetry, personnel release surveys, derived air concentrations and ALARA program,
- Maintaining working files for the satisfactory completion of training and medical surveillance records of personnel on-site,
- Maintaining and updating this site specific H&S Plan; and
- Performing regular health and safety inspections.

3.4 Subcontractor Superintendent

Each subcontractor must appoint a Superintendent who reports directly to the New Horizons Field Supervisor. The Superintendent duties include, but are not limited to:

- Ensuring that the contractor's personnel are following the HSP, and reporting any deviations to the SSO/RSO or Field Supervisor
- Reporting contractor injuries or illnesses to the Field Supervisor
- Removing damaged or inoperable contractor equipment from site operations
- Performing duties in a safe manner

3.5 Site Personnel

All personnel working on the site are required to understand and comply with the requirements of this HSP.

The responsibilities of Site Personnel include, but are not limited to:

- Taking reasonable precautions to prevent injury to themselves and others
- Adherence to the provisions of this HSP
- Performing work in a safe manner
- Performing only those tasks they believe they can do safely and immediately reporting accidents or unsafe conditions to the Field Supervisor or the SSO/RSO

4.0 SITE SECURITY

All fence gates will be kept locked during non-work hours. Security will be provided by New Horizons during on-site activities. If a security breach of unauthorized persons occurs, workers shall notify the Field Supervisor immediately. Any other security issues, such as (but not limited to) bomb threats, violence, harassment, or potential physical harm to site workers by unauthorized persons shall be immediately reported to appropriate law enforcement personnel.

5.0 WORK ZONES

New Horizons will establish dedicated work zones at the site. The work zones will be divided into three distinct work zones:

- Exclusion Zone (EZ)
- Contamination Reduction Zone (CRZ)
- Support Zone (SZ)

All zones will be established prior to the start of remediation activities. A description of each work zone is provided in the following sections.

5.1 Exclusion Zone

The work area where materials are actively being handled, disturbed, or moved, and where contaminants may be present. Access to the Exclusion Zone is controlled and monitored. Persons not properly trained for the work or are unauthorized in the Exclusion Zone will not be permitted access.

The Exclusion Zone boundary shall be modified as site conditions and activities warrant. The SSO/RSO or Field Supervisor shall be responsible for changes to the Exclusion Zone boundary. The following considerations are used to determine the boundary of the Exclusion Zone:

- Distances necessary to prevent contamination spread during performance of tasks
- The distances required for personnel and equipment transit
- The area required for site operations
- Probable meteorological conditions
- Site topography and layout

5.2 Contamination Reduction Zone

The transition area between the Exclusion Zone and the Support Zone. The CRZ is generally positioned outside and upwind of the Exclusion Zone. The purpose of the CRZ is to prevent casual access to the Exclusion Zone, and the location used to decontaminate personnel and equipment.

The Field Supervisor shall determine the decontamination configuration for this zone. Emergency response equipment may be maintained in this area.

5.3 Support Zone

The "clean" area where workers should not be exposed to hazardous conditions; this zone is where administrative and other support functions are located. Support activities are positioned outside and upwind of the CRZ. The Support Zone (SZ) shall be equipped with the following, as a minimum:

- First Aid Station
- Office Stations
- Personal Hygiene Washing Facility
- Restrooms

- Eating, Drinking, and Break Areas
- Parking Areas.

The work zones will be delineated as follows:

- Temporary caution tape will mark the boundary between the SZ and the CRZ. All non-essential personnel and equipment will remain outside the boundary in the SZ.
- The EZ will be delineated using t-posts positioned around the specific work areas. Orange high-visibility fencing also may be used to delineate EZ boundaries. The size and geometry of the EZ boundary will be modified as appropriate by the SSO/RSO based on air monitoring results, and site conditions.

Access to the work zone will be limited to one entrance/exit, as appropriate. Equipment and personnel will be decontaminated as necessary upon exit from the CRZ into the SZ. Surveys will be performed to verify decontamination.

6.0 BUDDY SYSTEM

The Buddy System shall be used at all times during work operations. Buddies shall be prepared to be dressed out in the same level of personal protection and will maintain line-of-sight contact at all times. New Horizons employees must maintain communication with at least one other person on-site while performing activities. A New Horizons supervisory person will be on-site at all times during work at the site.

Field personnel shall watch each other for signs of exposure, including:

- Changes in complexion and skin discoloration,
- Changes in coordination,
- Changes in demeanor,
- Excessive salivation and pupillary response,
- Changes in speech pattern.

Site personnel will be instructed to advise each other of non-visual indications of exposure, such as:

- Headaches
- Dizziness, Nausea
- Blurred vision
- Cramps
- Irritation of eyes, skin, or respiratory tract

7.0 POSTING / SIGNAGE

The entrance to the site work zones shall be posted with conspicuous sign(s). Signs will be posted to meet applicable local and state requirements, and other special requirements (i.e., radioactive materials area), as necessary. Decontamination areas and access control points will be posted with signs designating them as such.

8.0 SITE COMMUNICATIONS

The following communications system will be available during activities at the site.

8.1 On-Site Communications

Hand-held Radios: Radios will be assigned for specific work tasks. Personnel using the radios will be instructed in the operation of the equipment before it is used.

Hand Signals: Hand signals may be used to supplement on-site communication, or for tasks where hand-held radios are not used. Site personnel will be instructed, before work begins, in the use of the following signals.

Signal	Definition
Hands clutching throat	Out of air / difficulty breathing
Hands on top of head	Need assistance
Thumbs Down	No / negative
Thumbs Up	OK / I'm all right / I understand
Arms waving upright	Send backup support
Grip partners wrist	Exit area immediately

8.2 Off-Site Communications

To summon help from off-site, a telephone, cellular phone, or two-way radio will be on-site and in operable condition. Work shall commence only after a primary means of off-site communications has been established and determined operable. A systems check must be done daily *before* work activities commence. The systems check establishes that the equipment is in proper working condition, and that the equipment is not interfering with frequencies of nearby activities, or other communication sources.

A backup or secondary means of off-site communications also must be designated before work begins. Secondary communications may include telephone, cellular phone, and two-way radios that are not used for primary means. Discussion of primary and secondary communications will be part of the daily safety briefing.

8.3 Daily Safety Briefings

During daily safety briefings, all site personnel will be informed and reminded of provisions of the site-specific emergency response plan, communication systems, levels of protection, exclusion zone boundaries, results of monitoring, and evacuation routes. All site personnel must attend the daily safety briefings. The plan will be reviewed and revised if necessary, on a regular basis by the SSO/RSO. This will ensure that the plan is adequate and consistent with site conditions. Site air monitoring results and other safety information will be provided to the employees at the daily site briefings.

9.0 SITE FACILITIES

9.1 Sanitation

The minimum sanitation requirements will provide for adequate hand washing and toilet facilities. Washing facilities will be in proximity to the work site. All washing and toilet facilities will be maintained by the vendor providing toilet facilities. All site personnel shall make reasonable efforts to maintain washing and toilet facilities in clean and operable conditions.

9.2 Illumination

Work on the site will take place primarily during daytime hours. However, in the event that work is not done during daylight, the minimum illumination requirements in CFR 1926.56 and 29 CFR 1910.120 shall be followed. The minimum illumination for the work site will provide five foot candles of illumination and all First Aid areas will have at least 30 foot candles of illumination.

10.0 AIR MONITORING AND INDUSTRIAL HYGIENE

10.1 Personal Exposure Samples

Representative Site workers will be monitored periodically for exposure to airborne contaminants, specifically metals and radionuclides. Samples for radionuclides will be obtained using glass fiber filters and personal sampling pumps operating at about one liter per minute for a specified duration. Samples will be collected at the end of the shift and analyzed on site for airborne radioactivity. If the on-site analysis indicates any exposure to airborne radioactivity other than radon, the sample filter will be submitted for off-site analysis of specific radionuclides.

Metal samples will be obtained using 0.8 μ MCE filter cassettes. These samples will be obtained from representative site workers and submitted for off-site analysis for specific metals of concern, specifically lead and arsenic. Personal exposure monitoring will be conducted periodically during active excavation operations to measure employee exposures and to ensure proper levels of PPE. At the option of the SSO/RSO, work area exposure samples also may be obtained for airborne dust or airborne radionuclides. These samples would be obtained from locations most likely to exhibit maximum exposure to these airborne constituents.

10.2 Personal Exposure Surveys

In addition to the sampling of personnel for exposure to airborne radioactivity, instrumental measurements of personal exposure to ionizing radiation will be obtained each day that site activities take place.

Each work area will be surveyed using the gamma dose rate meter. The SSO/RSO will obtained these measurements at the ground surface and at one meter above the ground. Results of this survey will be posted in the work area. The meaning of these results in terms of allowable exposures will be explained to site personnel as part of the regular safety briefings.

10.3 Dosimetry

Each employee working on the site will be equipped with a personal radiation dosimeter (Thermoluminescent Dosimeter) that will provide accurate personnel dosimetry and comprehensive diagnostic evaluation. The dosimetry badges will be analyzed quarterly. One control dosimeter will be located in the New Horizons support office located in the SZ. The dosimetry results will be incorporated into New Horizons' ALARA program. All dosimetry records will become a part of each employees medical record.

10.4 Instrumentation

For initial, area surveys, direct reading instrumentation from the following list may be used. The use of additional instrumentation may be approved, as necessary. All air monitoring instrumentation must be calibrated daily by a person knowledgeable in calibration procedures and equipment use. All calibration results will be documented. Air sampling equipment shall not be placed or stored on potentially contaminated surfaces.

Hazard	Instrumentation
Flammable, combustible or explosive limits	Explosimeter
Oxygen content	Oxygen Meter
Volatile Organic Compounds (VOC's)	PID (Photo Ionization Detector)
Particulates	Mini-Ram, integrated sampling devices
Radiation	Personal Air Sampling Pump
Gamma radiation	Ludlum Model 19 – Dose Rate Meter

11.0 PERSONAL PROTECTIVE EQUIPMENT

All personnel must receive a fit test prior to wearing respiratory protection on site. Fit testing will be conducted by a qualified individual and will follow recognized fit test protocols.

Periodic visual inspections of all personal protective equipment will be conducted to identify any potential problems. Any damaged or broken equipment will be immediately taken out of service and either repaired or discarded.

The following levels of protection will be utilized during site operations. Modifications to PPE requirements will be made at the discretion of the site Field Supervisor or SSO / RSO in accordance with this plan and site conditions.

Level D

Level D is used where airborne concentrations of contaminants are below established action levels and/or areas minimal skin and eye protection is needed but no respiratory protection is needed. Based on air monitoring results accumulated during the Remedial Investigation work with the impacted materials, Level D protection is adequate for the protection of employees. However, the level of

protection will be modified as required based on site air monitoring conducted during the site activities. Employees will have the option to upgrade to a higher level of PPE regardless of the results of air monitoring. At a minimum, Level D PPE will be worn in all work areas at the site. The Level D ensemble consists of:

- Work clothes
- Disposable gloves (*optional*)
- Steel toe and shank work boots
- Hard hat
- Safety glasses or goggles
- Disposable outer boots (*optional*)
- Hearing protectors (*optional*)
- Reflective vest

Level C

Level C PPE will be worn whenever airborne concentrations of contaminants are above established action levels, whenever the potential exists for chemical contact / splash, or as otherwise directed by the SSO/RSO or Field Supervisor. The Level C ensemble consists of:

- Half- or full-face air-purifying respirator with the appropriate filter cartridge
- Chemical-resistant clothing / coveralls (*optional*)
- Gloves, outer, chemical-resistant (*optional*)
- Gloves, inner, chemical-resistant (*optional*)
- Boots, steel toe and shank, chemical-resistant (*optional*)
- Hard hat
- Safety glasses or goggles
- Hearing protection (*optional*)
- Reflective vest

All respirators shall be MSHA/NIOSH approved and will be selected, maintained, serviced, used, and stored in accordance with 29 CFR 1910.134.

12.0 THERMAL STRESS

12.1 Heat Stress

Project personnel wearing PPE are subject to risk of developing heat stress. Individuals vary in their susceptibility to heat stress. Factors that may predispose on-site workers to heat stress include the following:

- Lack of physical fitness
- Lack of acclimatization
- Age
- Dehydration
- Obesity
- Alcohol and drug use
- Infection

- Sunburn

Project personnel at risk of heat stress will be monitored under the direction of the SSO/RSO. Because the incidence of heat stress depends on a variety of factors, all workers (even those not wearing PPE) will be monitored. For workers wearing permeable clothing, employees will follow the recommendations for monitoring requirements and suggested work/rest schedules in the current American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) for Heat Stress. For workers wearing semipermeable or impermeable PPE, the ACGIH standard cannot be used. For these situations, workers will be monitored when the temperature in the work area is above 80°F. The monitoring techniques may include the following:

Heart rate. Count the radial pulse during a 30-second period as early as possible in a rest period. If the heart rate exceeds 110 beats per minute at the beginning of the rest period, the next work cycle will be shortened by one third.

Symptoms of heat stress. Heat rash; heat cramps; muscle spasms; pain in hands, feet, and abdomen; pale, cool, moist skin; heavy sweating; dizziness; nausea; fainting; and/or confusion. If any symptoms are evident, the worker may be removed from the work area and monitored closely by the SSO/RSO.

Project personnel will be trained in the detection of signs and symptoms and preventive measures to help avert heat stress-related illnesses. Preventive measures include:

- Adjustment of work/rest schedules
- Maintenance of workers' body fluids
- Optimal physical fitness regimen
- Shelter for rest periods

12.2 Hypothermia / Frostbite

Cold temperatures and attendant hypothermia and frostbite hazards may be present during site activities. The SSO/RSO will train employees in the signs of hypothermia and frostbite and the means of preventing these conditions from developing. The SSO/RSO will observe employees during periods of cold weather to ensure that adequate clothing is being worn. Employees will be alerted to the signs and symptoms of frostbite and hypothermia. Specifically, these include the following:

- Gray appearance of exposed flesh
- Absence of feeling, particularly in extremities or exposed portions of the body
- Uncontrollable persistent shivering
- Absence of shivering although the subject feels severely chilled
- Lethargy and disorientation

The SSO/RSO and Field Supervisor will inspect workers to ensure prompt identification and response to early signs of frostbite or hypothermia. Hypothermia will be most likely to develop in personnel performing dust control and decontamination activities. Break periods may be extended or be taken more frequently during periods of extreme cold.

13.0 FALL PROTECTION

In areas where fall protection is required, workers shall use the appropriate fall protection equipment. Any employee who is working in an area not otherwise protected by finished or temporary handrails; where their work is to be performed on scaffolds, or an any other working surface where they may be subject to a fall great then six (6) feet, must wear and use safety belts, lanyards and lifelines or other fall protection as directed by the SSO / RSO.

14.0 HEARING PROTECTION

14.1 Procedures for Noise Monitoring

Certain activities on the site, such as the use of heavy equipment and machinery, can create noise levels in excess of the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL). Whenever possible and practicable, engineering and administrative controls will be used to control or abate noise hazards. When engineering and administrative controls are not applicable, hearing protection devices will be relied upon to protect site personnel. Hearing protection will be provided to all site personnel when they may be exposed to a Time Weighted Average (TWA) of 85 decibels (dBA) or greater.

Noise levels may be monitored as determined by the SSO/RSO or Field Supervisor. Based on noise level monitoring results, hearing protection with the appropriate noise reduction ratings (NRR) will be selected by the SSO/RSO. All noise monitoring results will be documented and kept as part of the permanent project file. Hearing protection equipment, such as ear plugs and muffs, are considered PPE and will be maintained as outlined in Section 11.0 of this HSP.

All hearing conservation measures taken by the SSO/RSO for site activities will be done in accordance with the OSHA regulation for occupational noise exposure (29 CFR 1910.95). Noise sources will be identified using a sound level meter. Actual worker noise exposure will be accomplished using noise dosimeters. Hearing protection will be worn by all persons working in noise levels of 85 dBA or greater.

15.0 DECONTAMINATION

15.1 Standard Operating Procedures

All personnel shall minimize contact with and exposure to site contaminants. Prevention of contamination is the first step in decontamination operations.

All personnel and equipment leaving the EZ will be decontaminated as necessary. Personnel will progress from the EZ through the CRZ. Workers will sequentially doff their PPE, starting at the first station with the most heavily contaminated item and progressing to the last station with the least contaminated article. Ideally, contamination should decrease as a person moves from one station to another in the sequence.

If level C PPE is being worn in the EZ, the area within the CRZ immediately adjacent to the EZ will be designated the Contamination Reduction Corridor (CRC). The boundary between the two areas is

the hot-line. The CRC controls access into and out of the EZ and confines decontamination activities to a limited area. The CRC boundaries will be conspicuously marked, with entry and exit restricted. Personnel exiting the EZ must go through the CRC. Anyone assisting the decontamination process must wear the same level of PPE or one level below that of the workers being decontaminated. Personnel decontamination verification will be performed utilizing alpha radiation detection instrumentation to detect radioactivity, as determined appropriate. The SSO/RSO or authorized designee will perform the personnel release surveys, as needed. Radioactivity measurements detected above the applicable free release standard for fixed and removable radioactivity will necessitate additional decontamination and re-survey. Personnel radioactive surveys will be performed in accordance with the SAP.

A separate corridor may be set up for heavy equipment decontamination based on site conditions. If needed, a decontamination pad shall be constructed for heavy equipment decontamination. These areas will be clearly marked and personnel restricted to those wearing the appropriate level of PPE. All equipment and tools utilized during material handling or sampling activities in the EZ will be surveyed for radioactivity prior to removal to the SZ. The SSO/RSO or authorized designee will perform the equipment release surveys. Radioactivity measurements above the applicable free release standard for fixed and removable radioactivity will be decontaminated and re-surveyed. Free release surveys will be performed in accordance with the SAP.

Gross contamination of all tools used within the EZ will be removed prior to leaving the EZ. Site personnel shall inspect the tools to make sure that gross contamination has been removed. Tools may have to be further decontaminated by either being washed or wiped while progressing through the CRC. Either the heavy equipment or personnel corridor may be used to decontaminate tools. A warm water solution may be used for tool decontamination.

15.2 Life-threatening Emergencies

Treatment of life-threatening injuries is the number one priority, certainly exceeding the potential threat from site contamination, especially with the low concentrations of contaminants at the site. In these situations, decontamination procedures are a secondary concern. Therefore, typical decontamination may not occur. The following decontamination procedures should occur, as a minimum, when a life-threatening emergency occurs.

- If level C PPE is being used, conduct a coarse decontamination of the person as the worker is moved out of the work area.
- Be aware that decontamination may not be possible at all in certain situations.
- When summoning emergency medical services (EMS), warn them in advance of the type and extent of contamination.
- If emergency personnel must enter the work area to assist the affected worker, inform the EMS personnel of the potential hazards in the work area.

15.3 Contaminated Water / PPE

The residual water derived from decontamination activities will be placed in designated containers, inventoried, labeled, and properly stored and managed. Decontamination derived water also may be used for dust control purposes, or sampled, analyzed, and disposed of in accordance with applicable federal, state, and local regulations.

All disposable, decontaminated PPE shall be placed in designated containers, inventoried, labeled, and properly stored and managed in accordance with applicable regulations. PPE generation will be minimized to the extent practicable.

Non-disposable PPE will be decontaminated according to procedures in this section. Non-disposable PPE can be reused only if it meets inspection criteria outlined in this plan.

15.4 Decontamination verification

Decontamination verification will be performed using a Ludlum model 2221 equipped with a 43-5 detector probe. This scintillation detector will be used to survey equipment and personnel to verify adequate decontamination, as needed. The equipment and personnel surveys will be performed in accordance with the applicable sections of the SAP. The decontamination verification survey will be performed by the SSO/RSO or qualified designee.

16.0 PERSONNEL TRAINING

16.1 Classroom Instruction

All personnel working on site shall receive appropriate training prior to commencing work at the Site. Such training may include the following, as applicable:

- OSHA 40 Hour Hazardous Waste Operations / Emergency Response, 29 CFR 1910.120
- Hazard Communication, 29 CFR 1910.1200
- Personal Protective Equipment, 29 CFR 1910.132
- Radiation Protection, 10 CFR Part 20
- Respiratory Protection, 29 CFR 1910.134
- First Aid/CPR
- Hazardous Waste Management and Handling, RCRA, 40 CFR 165.16
- Department of Transportation HM126-F, 49 CFR 172.700

16.2 Site Specific Training

All potential health and safety hazards at the site, and the requirements of this HSP shall be communicated to all persons entering the work area. Such information shall include, but not be limited to:

- Chemical hazards and controls
- Physical hazards and controls
- Biological hazards and controls
- Radiation hazards and controls
- Emergency procedures
- Site communications
- Location of Material Safety Data Sheets
- Any other relevant site information.

16.3 Tailgate Safety Briefings

Safety briefings will be conducted on site on a daily basis, whenever new field teams and/or visitors arrive on site, and whenever new field activities begin where potential hazard(s) to worker safety exist. The SSO/RSO will conduct and document attendance at the tailgate safety briefings. A copy of New Horizons Safety Briefing Form is provided in *Appendix A*.

17.0 MEDICAL SURVEILLANCE

All New Horizons personnel (or other site personnel performing activities in designated work zones) will be subject to a medical surveillance plan as specified in 29 CFR 1910.120, 1910.96 and the New Horizons Medical Monitoring Policy. This program consists of (if required) an initial physical examination, annual medical evaluations, and an exit or termination physical examination.

All medical examination records, reports of occupational illness, and air monitoring results indicating levels of exposure will be maintained by New Horizons a minimum of 30 years after termination of employment. All medical records will be furnished for inspection and copying to the employee, the employee's personal physician, or an authorized representative of any governmental agency with appropriate jurisdiction.

18.0 FIRST AID AND MEDICAL SUPPORT

18.1 First Aid

A First Aid station will be available in the New Horizons site office during operating hours. The First Aid area will be equipped and maintained in a professional manner under the supervision of the SSO/RSO and will be equipped with the supplies needed to treat minor injuries. The location of the First Aid Station should provide immediate access to First Aid supplies for both the SZ and CRZ.

If injuries occur, workers are required to immediately notify the Field Supervisor or SSO/RSO. The First Aid equipment listed below will be available on site at all times during working hours. The SSO/RSO is responsible for maintaining this equipment.

- First Aid Kit
- Fire Extinguishers
- Portable Eye Wash Unit.

18.2 Emergency Services

Lutheran Medical Center located at 8300 W. 38th Avenue in Wheat Ridge, Colorado has been selected as the Emergency Care facility-of-choice for this project. Emergency phone numbers are provided in Section 19.2 of this HSP. A map indicating the route to the hospital will be posted at the site office.

19.0 EMERGENCY RESPONSE

19.1 Emergency Procedures

All incidents will be dealt with in a manner to minimize adverse health risk to site workers. In the event an incident occurs, the following procedures will be followed:

- First Aid or other appropriate initial action will be administered by properly trained personnel who are closest to the incident. This assistance will be conducted in a manner to ensure that those rendering assistance are not placed in a situation of unacceptable risk.
- All incidents will be reported to the Field Supervisor or SSO/RSO. The Field Supervisor is responsible for coordinating the emergency response in an efficient, rapid, and safe manner.

All personnel on site are responsible for conducting themselves in a mature, calm manner during an incident. All personnel must conduct themselves in a manner that avoids spreading the danger to themselves, other personnel on site, and the public.

19.2 Emergency Telephone Numbers

The following emergency information will be posted at conspicuous locations where field activities will be performed:

Contact	Telephone
Police	911
Ambulance	911
Lutheran Medical Center	(303) 425-4500
Fire Department	911
Emergency Medical Air Lift Services	(303) 360-3400
New Horizons' PM (R. Krumberger)	(303) 647-1055
Colorado School of Mines (L. Havelick)	(303) 273-3998

19.3 Personnel Roles / Lines of Authority

Implementation of emergency response procedures will be based on the information available at the time of the emergency. The PM is responsible for the overall emergency response operations. The Field Supervisor will be closely assisted by the SSO/RSO. Both will evaluate the incident and the site response capabilities, and proceed with the steps to implement an appropriate response. Possible actions may involve evacuation of personnel from the site area. All site personnel are responsible for assisting the Field Supervisor or SSO/RSO during the response within the parameters of their scope of work. The Field Supervisor is responsible for ensuring that corrective measures have been implemented, appropriate authorities notified, and follow-up reports completed.

19.4 Communications

Primary emergency response communication shall be a telephone, cellular phone, or two-way radio. Primary means of communication will be established daily before work activities begin. An operational test will be conducted daily, before work begins, to make sure that the equipment is in proper working order and is not interfering with frequencies of nearby activities or nearby

communications. The primary means of communication will be discussed during the daily safety briefing.

A secondary means of communication also must be established daily and communicated to site personnel during the daily briefing. Secondary or backup communications can include a cellular phone or a two-way radio other than those used for primary purposes.

19.5 Emergency Procedures

19.5.1 Fire / Explosion

In the event of a fire or explosion, the following procedures will be followed:

- Workers will immediately summon help.
- The appropriate fire extinguisher shall be used to bring the fire under control, if it is an incipient fire.
- As feasible, surrounding soil, a fire blanket, or other inert materials shall be placed on the burning area to extinguish the flames and minimize the potential for spreading.
- The Fire Department will be notified
- If the fire becomes uncontrolled, on-site personnel shall immediately evacuate the area and stand clear of the area (upwind). The Field Supervisor is responsible for accounting for all personnel

19.5.2 Chemical Releases

The presence of chemical reagents on the site will be minimal. However, if a chemical release occurs (liquid, solid, or gas), site personnel will stop work, evacuate the work area, and notify the Project Manager or Field Supervisor. Workers will not return to the area until the release has been contained, and the area is approved by the SSO / RSO or Field Supervisor as safe to resume work.

Responses to major chemical releases will be performed by trained personnel. Responses to incidental releases will be determined by the SSO/RSO. Workers are not expected to perform chemical emergency response; however, they can perform measures to prevent the spreading of the material. For incidental releases, workers will:

- Summon help.
- Attempt to identify the release from a safe distance.
- Use spill containment equipment (absorbent, pigs, booms) as appropriate to the release and personal safety.
- Inspect containers to assure their integrity before being moved.
- Minimize container movement.
- Use only DOT approved containers to remove released material from the site.
- Containers that cannot be moved without failure shall be emptied into a sound container.

Spilled material and containment materials will be placed in designated containers, inventoried, labeled, and properly stored and managed in accordance with applicable regulations.

19.5.3 Severe Weather Events

Severe weather events, including tornadoes, high winds, heavy rains, hail, lightning and snowstorms may arrive at the site with little or no warning. In case of certain severe weather events, such as large thunderstorms, the Field Supervisor will be consulted to determine if work will need to be stopped early in order for employees to leave for their homes. During the daily briefing the Field Supervisor will instruct workers where to take cover in the event of severe weather. Excavation work will be halted when sustained winds exceed 30 miles per hour, as measured by the on-site weather monitoring instrumentation.

The site is not within the 100-year flood plain, therefore, flooding or flash-flooding is not anticipated. Should this unlikely event occur, all personnel shall assemble at New Horizons site office. If a site evacuation is necessary, an account of all persons should be made before leaving the site. Contractor supervisors are responsible for accounting for their personnel. Contractor supervisors will report to the Field Supervisor regarding employee accountability.

19.5.4 Worker Injury or Illness

The procedures for responding to a worker injury or illness depend on the severity of the worker's condition. Medical response may need to be sought. The types of injuries and illnesses are varied, and shall be treated accordingly. The following steps must be taken in the event of a serious injury or illness to an employee occurs:

- Contact Emergency Medical Assistance providers (telephone numbers are provided in Section 19.2 of this HSP)
- If the area presents no immediate danger, standard First Aid care should be given to the victim at the scene. The First Aid provider will provide care without further injuring or endangering the victim. **Moving the victim can make injuries worse**. If contamination does not present an immediate danger, the victim should not be moved. An evaluation may be made when emergency medical help arrives.
- If the area presents an immediate danger, the victim should be moved. Examples include fire, lack of oxygen, serious traffic hazard, risk of explosion, collapsing material or electrical hazards. Victims shall be moved using American Red Cross procedures. Persons trained in First Aid and CPR should direct those not trained.
- When an injured person is contaminated, a decision will be made whether to give priority to the First Aid actions or decontamination. The priority decision will be made by the Field Supervisor or SSO / RSO. When the situation is life threatening (immediate danger), the victim should be removed from the area without being decontaminated. In these situations, treatment of life-threatening injuries is the number one priority. Decontamination procedures are always a secondary concern. Where contamination is a factor, a life-threatening injury outweighs contamination control considerations.
- If decontamination is necessary, follow the procedures in Section 15.0 of this HSP. If the victim is contaminated and is transported to a medical facility, the receiving medical facility must be notified ahead of the victim's arrival.

20.0 CONFINED SPACE ENTRY

Untrained site personnel may not enter confined spaces under any circumstances. Only authorized and appropriately trained persons are permitted to perform confined space entries. As applicable, New Horizons may evaluate subcontractor training records, written company CSE programs, CSE permits, and any other applicable/related permits, recordkeeping, or programs (such as lockout/tagout, Hazcom) before CSE is performed. New Horizons will perform air monitoring in conjunction with issuance of a confined space permit. A competent person, as defined by OSHA, must perform the air monitoring.

Site personnel should be able to recognize a confined space situation. Work areas that may pose confined space hazards include aboveground storage tank, bunkers, vaults, manholes, tunnels, excavations, and trenches. This list is not exhaustive. Confined space recognition will be detailed in the daily safety briefings.

If personnel are in doubt whether they are confronted with an OSHA-defined confined space, she/he must not enter the space. Contact should be made immediately with a SSO / RSO.

21.0 DEMOLITION SAFETY

To ensure the safety of on-site employees, all demolition operations and equipment shall conform to the applicable provisions of 29 CFR 1926 Subpart T. The requirements of this Subpart are summarized in the following sections.

21.1 Preparatory operations

21.1.1 Utilities

All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company that is involved shall be notified in advance. If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.

21.1.2 Hazardous Materials

It shall be determined if any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property. When the presence of any such substances is apparent or suspected, testing and purging shall be performed and the hazard eliminated before demolition is started.

21.2 Hoisting and Rigging

Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service. Rigging equipment shall not be loaded in excess of its recommended safe working load, as prescribed in 1926.252(e). Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a hazard to employees.

Each day before being used, slings, fastenings and attachments will be inspected for damage or defects by the SSO. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.

New Horizons will comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks. Where manufacturer's specifications are not available, the limitations assigned to the equipment shall be based on the determinations of a qualified engineer competent in this field and such determinations will be appropriately documented and recorded. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.

Rated load capacities, and recommended operating speeds, special hazard warnings, or instruction, shall be conspicuously posted on all equipment. Instructions or warnings shall be visible to the operator while he is at his control station.

Hand signals to crane and derrick operators will be those prescribed by the applicable ANSI standard for the type of crane in use. An illustration of the signals will be posted at the job site.

The SSO will inspect all machinery and equipment prior to each use, and during use, to make sure it is in safe operating condition. Any deficiencies shall be repaired, or defective parts replaced, before continued use.

A thorough, annual inspection of the hoisting machinery shall be made by a competent person, or by a government or private agency recognized by the U.S. Department of Labor. New Horizons will maintain a record of the dates and results of inspections for each hoisting machine and piece of equipment.

22.0 EXCAVATION OPERATIONS

All trenching and excavation operations will be conducted in accordance with 29 CFR 1926.650-653 and Appendices A through F of Subpart P. This standard applies to all open excavations within which employees may be required to perform activities. Unstable vertical faces, inadequate shoring, changing weather conditions, or heavy loads adjacent to the excavation may cause cave-ins. Soil structure has a direct bearing on the type and amount of shoring required or safe slope angles.

22.1 Excavation and Trenching Policy

All persons operating the excavating/trenching equipment will be trained and familiar with the potential hazards. All trenches deeper than 4 feet will be sloped, shored, sheeted, braced, or otherwise supported in a manner consistent with the regulatory requirements. When employees are required to be in trenches 4 feet or more in depth, adequate means of exit (ladders) will be provided. The ladders will be in good condition, extend at least 3 feet above the excavation, and otherwise comply with OSHA regulations regarding ladders and their use. All excavations/trenches and any shoring or bracing will be inspected by the Field Supervisor daily and after changes in weather.

All surface encumbrances will be removed or supported to protect employees. All utility companies or owners will be contacted and requested to locate their underground installations before beginning excavation.

Ramps, runways, ladders, etc. will be used to enter and exit excavations. A competent person qualified in structural design will design structural ramps. In trench excavations, the means of egress will be no more than 25 feet of lateral movement for employees to reach. The sloped end of a trench will be adequate when an employee is able to walk the ramp in an upright manner. A knotted rope or use of lifting or digging equipment as a means to enter of exit excavations is prohibited.

22.2 Hazardous Atmosphere

Employees will not enter excavations greater than 4 feet without issuance of a confined space entry permit in accordance with the applicable regulations. Excavations greater than four feet will be tested for oxygen deficiency or flammable and/or explosive environments. Proper respiratory protection and/or ventilation will be used to prevent employee exposure to atmospheres where oxygen deficiency or atmospheres containing a concentration of a flammable gas in excess of 10-percent of the gas specific Lower Explosive Limit (LEL).

22.3 Water Accumulation

Site personnel may not work in excavations with accumulated or accumulating water unless water removal equipment to control water levels is operating and controlling the water level. In addition, support systems to prevent cave-in and safety harness and lifeline apparatus will be available.

22.4 Inspections

The excavation will be inspected daily by a competent person (as defined by OSHA) prior to the start of work and as needed throughout the day, especially after rainfall events. For this project the SSO qualifies as, and is designated as the competent person. Engineering drawings and diagrams for the construction of trenches, test pits, and shoring or sloping systems will be maintained as part of the project file documentation for this project, if applicable. Prior to implementation, these documents will be reviewed by the SSO or PM to ensure compliance with regulations.

22.5 Sloping and Benching

In the event that personnel enter the excavation, the slope of the excavation sides will not be steeper than 34 degrees (1.5 horizontal length for each 1.0 vertical height) for unclassified soils. If soils are classified, the selection of a sloping or benching system will be designed by a registered professional engineer in accordance with the regulations.

22.6 Shoring, Shielding, or Other Support Systems

Shoring, shielding, or other support systems may be necessary if personnel enter the excavation. Excavations utilizing these precautions will have soils classified and use one of the following design options:

- Hydraulic shoring, trench jacks, air shores, and shields
- Shoring and shielding methods based on tabulated data approved by a registered professional engineer
- Timber shoring that is detailed in the appendices of the regulation
- A support system design approved by a registered professional engineer.

23.0 WELDING AND CUTTING

Project personnel who perform welding or cutting operations shall comply with applicable hot work requirements in accordance with 29 CFR 1910.252.

23.1 Fire Protection

A fire watcher will be present in the work area when hot work is being performed. Fire watchers will be equipped with fire extinguishing equipment (20-pound multipurpose or equivalent) readily available and will be trained in its use. Fire watchers will be provided with facilities for sounding an alarm in the event of a fire. Fire watchers will look for fires in all exposed areas and try to extinguish them only when obviously within the capability of the equipment available. Otherwise, an alarm should be sounded and the Field Supervisor immediately notified. A fire watch will be maintained for at least a half hour after completion of cutting operations to detect and extinguish possible smoldering fires.

Hot work will not be permitted in (1) the presence of explosive atmospheres, (2) explosive atmospheres that may develop inside uncleaned tanks, or (3) equipment which has previously contained such materials or that may develop in areas with an accumulation of combustible dusts. Air monitoring will be performed in the work areas prior to the onset of hot work. Where practical, all combustibles will be relocated a minimum of 35 feet from the work site. Where relocation is impractical, combustibles will be protected with flameproof covers or guards.

All hot work will require the issuance of a Hot Work Permit. All personnel must obtain a Hot Work Permit to be issued by the SSO, prior to commencing any hot work.

23.2 Personnel Protection

Site personnel will utilize appropriate respiratory protective equipment in work areas for removal of respirable dusts in the event that potential hazardous concentrations exist. The SSO will determine the appropriate respiratory protection before hot work in the area commences. Site personnel will be equipped with suitable eye protection during all hot work operations. Protective eye and face equipment will be required in accordance with 29 CFR 1910.133.

24.0 RECORDKEEPING

24.1 Health and Safety Log Book

A designated Health and Safety Logbook shall be maintained at all times on the site. All events related to health and safety shall be documented by the SSO / RSO. The Log Book shall not leave the site; if information in the book is needed by another party, copies of the applicable page(s) shall be made.

All tailgate meetings, safety briefings, breach of safety policies, air monitoring results, safety inspections, injuries and illnesses, communications with regulatory agencies, level(s) of protection, conditions for upgrading and downgrading of PPE, and all other health and safety related information should be made in the book. Entries should be as detailed as possible.

All journal entries should include the following:

- Date and time of observations
- Site weather conditions
- Work activities planned/being conducted at time of entry
- Person's name posting the entry
- Title of person posting the entry
- Signature of person posting the entry.

24.2 Accident Investigation

All incidents and/or injuries must be reported to the New Horizons Project Manager immediately. All fatalities will be reported to police immediately. Fatalities and multiple hospitalization incidents (3 or more persons are hospitalized) also will be reported to OSHA within 8 hours of occurrence, and further investigated by the SSO/RSO or other designated person. All contractors and site personnel will cooperate and assist the investigation as much as possible. Investigations shall be performed as soon after the incident as possible to review the accident site, to interview persons involved, and to document conditions surrounding the incident. Accident investigation records will be kept as a permanent part of the job file. A copy of New Horizons Incident Report is provided as *Appendix B*.

24.3 Health and Safety Plan Availability

A copy of this HSP shall be available to all workers on site at all times. Changes to the HSP shall be made as required. Amendments shall be approved by the Field Supervisor or SSO / RSO and become a permanent part of the project records.

APPENDIX A

HEALTH & SAFETY PLAN ACCEPTANCE CERTIFICATION
TAILGATE SAFETY MEETING DOCUMENTATION FORM

HEALTH & SAFETY PLAN ACCEPTANCE CERTIFICATION

This is to certify that I have read and understands the contents of the Health and Safety Plan for the CSMRI Site Remediation. Furthermore, I will comply with all of the requirements specified in the health and safety plan, both stated and implied.

_____	_____
Signature	*Date*
_____	_____
Signature	*Date*
_____	_____
Signature	*Date*
_____	_____
Signature	*Date*
_____	_____
Signature	*Date*
_____	_____
Signature	*Date*
_____	_____
Signature	*Date*
_____	_____
Signature	*Date*

TAILGATE SAFETY MEETING

Date: _____ Location: _____

Communication check: _____

Excavation Inspection: _____

Description of day's activities:

_____
_____
_____

Safety topics discussed:

_____
_____
_____

Employees Present:

Name *(print)*	Signature	Company	Title

Meeting Conducted by: _____

APPENDIX B

New Horizons Incident Report

NEW HORIZONS ENVIRONMENTAL CONSULTANTS, INC.
INCIDENT REPORT

TYPE OF INCIDENT – CHECK ALL THAT APPLY		
__ INJURY	**__ VEHICLE DAMAGE**	**__ PROPERTY DAMAGE**
__ FIRE		
__ SPILL	**__ AIR EMISSION**	**__ HIGH LOSS POTENTIAL**
__ OTHER		

GENERAL INFORMATION	
PROJECT NAME:	**DATE:**
DATE OF INCIDENT:	**TIME:**
SUPERVISOR ON DUTY: **AT SCENE OF INCIDENT: __ YES __ NO**	
LOCATION OF INCIDENT:	
WEATHER CONDITIONS: **ADEQUATE LIGHTING: __ YES __ NO __ N/A**	

DESCRIBE INCIDENT

AFFECTED EMPLOYEE INFORMATION	
NAME:	
HOME ADDRESS:	
SOCIAL SECURITY #:	**HOME PHONE #:**
JOB CLASSIFICATION: **YEARS IN JOB CLASSIFICATION:**	
NUMBER OF HOURS WORKED PRIOR TO INCIDENT:	**AGE:**
DID INCIDENT RELATE TO ROUTINE TASK: __ YES __ NO	

INJURY ILLNESS INFORMATION
NATURE OF INJURY OR ILLNESS:
OBJECT/EQUIPMENT/SUBSTANCE CAUSING HARM:
FIRST AID PROVIDED: __ YES __ NO IF YES, WHERE WAS IT GIVEN: __ ON SITE __ OFF SITE
IF YES, WHO PROVIDED FIRST AID?
WILL THE INJURY RESULT IN: __ RESTRICTED DUTY __ LOST TIME __ UNKNOWN

MEDICAL TREATMENT INFORMATION
WAS MEDICAL TREATMENT PROVIDED: __ YES __NO
IF YES, WAS MEDICAL TREATMENT PROVIDED: __ ON SITE __ DR'S OFFICE __ HOSPITAL
NAME OF PERSON(S) PROVIDING TREATMENT:
ADDRESS WHERE TREATMENT WAS PROVIDED:
TYPE OF TREATMENT:

VEHICLE AND PROPERTY DAMAGE INFORMATION
VEHICLE/PROPERTY DAMAGE:
DESCRIPTION OF DAMAGE:

SPILL AND AIR EMISSIONS INFORMATION	
SUBSTANCE SPILLED OR RELEASED:	
ESTIMATED QUANTITY/DURATION:	**IS THIS A RQ: __ YES __ NO __ UNKNOWN**

RESPONSE ACTION TAKEN:

ADDITIONAL INFORMATION (e.g., witnesses, subcontractor)

NOTIFICATIONS
NAMES OF PERSONNEL NOTIFIED:

PERSONS PREPARING REPORT	
EMPLOYEES NAME: (PRINT)	**SIGN:**
EMPLOYEES NAME: (PRINT)	**SIGN:**
SUPERVISORS NAME: (PRINT)	**SIGN:**