

HEALTH AND SAFETY PLAN
for the
ACCURATE DIE CASTING SITE
547 East Genesee Street
Fayetteville, New York

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TABLE 1 - Known and Potential Site Hazards: Chemical and Non-Chemical

TABLE 2 - Action Levels

TABLE 3 - Emergency Call List and Spill Notification

1.0 PROJECT PERSONNEL RESPONSIBILITIES

1.1 Project Manager

This person will act in a supervisory capacity over all employees and activities with respect to the Accurate Die Casting Project. The project manager has the authority to direct response operations and assumes total control over all site activities.

1.2 Project Supervisor

This individual may be the same person as the project manager and may be a member of the work party. The project supervisor oversees all field and related activities specific to Environmental Products & Services, Inc. The project supervisor for the Accurate Die Casting project will be determined prior to commencement of the work.

1.3 Site Safety and Health Officer

This individual advises the project manager/supervisor on all aspects of health and safety on site. The individual also has the authority to stop work if any operation threatens workers or public safety and health of safety.

1.4 Work Party

Personnel in the work party safely complete the on-site tasks required to fulfill the work plan. Personnel in the work party will comply with the site safety plan and ensure the site safety and health officer or supervisor is notified of any unsafe conditions. It is anticipated that the work party will consist of four to six personnel. This may vary due to any changes that occur during the actual site work all personnel in the work party will have the required 29 CFR 1910.120 40-Hour Training.

1.5 Decontamination Officer(s)

Responsible for decontamination procedures, equipment, and supplies, the decontamination officer for the drum removal and disposal at the Accurate Die Casting project will be determined prior to commencement of the work.

Note: All personnel working at the Accurate Die Casting site will have the required 40-Hour OSHA training in accordance with the provisions set forth in 29CFR 1910.120. Supervisors will have an additional eight hours of training.

2.0 SITE STANDARD OPERATING SAFETY PROCEDURES

Standard operating safety procedures include safety precautions and operating practices, that all Environmental Products & Services, Inc. personnel will follow. These include:

2.1 Personal Precautions

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth transfer and ingestion of material is prohibited in any area designated contaminated.
- Hands and face must be thoroughly washed upon leaving the work area.
- Whenever decontamination procedures for outer garments are in effect, the entire body should be thoroughly washed as soon as possible after the protective garment is removed.
- No facial hair which interferes with a satisfactory fit of the mask-to-face-seal is allowed on personnel require to wear respirators. Personnel will use the negative pressure fit test prior to each use of the equipment.
- Contact with contaminated or suspected contaminated surfaces should be avoided. Whenever possible, do not walk through puddles, leachate, discolored surfaces, kneel on ground, lean, sit, or place equipment on drums, containers, or the ground.
- Medicine and alcohol can potentiate the effects from exposure to toxic chemicals. Prescribed drugs should not be taken by personnel on response operations where the potential for absorption, inhalation, or ingestion of toxic substances exists unless specifically approved by a qualified physician. Alcoholic beverages should be avoided, in the off-duty hours, during response operations.

2.2 Operations

- All personnel going on-site must be adequately trained and thoroughly briefed on anticipated hazards, equipment to be worn, safety practices to be followed, emergency procedures, and communications.
- Any required respiratory protection and chemical protective clothing must be worn by all personnel going into areas designated for wearing protective equipment.

- Personnel on-site must use the buddy system when wearing respiratory protection. As a minimum, two other persons, suitably equipped, are required as safety backup during initial entry.
- Visual contact must be maintained between pairs on-site and safety personnel. Entry team members should remain closed together to assist each other during emergencies.
- During continual operations, on-site worker act as safety backup to each other. Off-site personnel provide emergency assistance.
- Personnel should practice unfamiliar operations prior to doing the actual procedure.
- Entrance and exit locations must be designated and emergency escape routes delineated. Warning signals for site evacuation must be established.
- Communications using radios, hand signals, signs, or other means must be maintained between initial entry members at all times. Emergency communications should be prearranged in case of radio failure, necessity for evacuation of site, or other reasons.
- Wind indicators visible to all personnel should be strategically located throughout the site.
- Personnel and equipment in the contaminated area should be minimized, consistent with effective site operations.
- Work areas for various operational activities must be established.
- Procedures for leaving a contaminated area must be planned and implemented prior to going on-site. Work areas and decontamination procedures must be established based on expected site conditions.

Note: These procedures will be posted at the guard shack prior to commencing work.

3.0 HEALTH AND SAFETY HAZARDS

The potential exists for personnel in the work party coming into contact with hazardous materials during the performance of the work. Area where concentration of hazardous materials may exceed the established permissible exposure limits will be closed off from general access.

Table 1 lists potential health and safety hazards that may be encountered based on general site tasks. This list has been compiled based on schedule activities and potential site conditions.

4.0 PERSONAL PROTECTIVE EQUIPMENT

4.1 Protective Equipment

All personnel will be provided with appropriate personal safety equipment and protective clothing. Each individual will be properly trained in the use of this safety equipment before the start of field activities. Safety equipment and protective clothing shall be used as directed by the Site Health and Safety Coordinator. All such equipment and clothing will be cleaned and maintained in proper condition by the personnel. The Site Health and Safety Coordinator will monitor the maintenance of personnel protective equipment to ensure proper procedures are followed.

Personal protective equipment will be worn at all time designated by this Health and Safety Plan. Levels of protective clothing and equipment are not expected to exceed Level B. Results from the site walk-through, and on-site readings will be used to set task and location specific action levels and levels of personal protection. These are detailed in Section 6.

The personal protective equipment levels designated below are in conformance with EPA criteria for Level A, B, C, and D protection. All respiratory protective equipment used will be approved by NIOSH/MSHA.

4.2 Level A Protection

A. Personnel Protective Equipment

- Supplied air respirator approved by the Mine Safety and Health Administration (MSHA) and National Institute for Occupational Safety and Health (NIOSH). Respirators may be:
 - ~ Pressure-demand, self-contained breathing apparatus (SCBA)
 - or
 - ~ Pressure-demand, airline respirator (with escape bottle for Immediately Dangerous to Life and Health (IDLH) or potential for IDLH atmosphere).
- Fully encapsulating chemical resistant suit.
- Coveralls*
- Long cotton underwear*

- Gloves (inner), chemical resistant
- Boots, chemical resistant, steel toe and shank (Depending on suit construction, worn over or under suit boot.)
- Hard hat* (under suit)
- Disposal gloves and boot covers* (worn over fully encapsulating suit)
- Cooling unit*
- Two-way radio communications* (inherently safe).

*. Optional

B. Criteria for Selection

Meeting any of these criteria warrants use of Level A Protection:

- The chemical substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on:
 - ~ Measured (or potential for) high concentration of atmospheric vapors, gases or particulates.
 - or
 - ~ Site operations and work functions involves high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials highly toxic to the skin.
- Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible.
- Operations must be conducted in confined, poorly ventilated areas until the absence of substances requiring Level A Protection is determined.
- Direct readings on field Flame Ionization Detectors (FID) or Photoionization Detectors (PID) and similar instruments, indicate high levels of unidentified vapors and gases in the air. (See Appendices I and II).
- Oxygen content > 19.5%.

C. Guidance on Selection

1. Fully encapsulating suits are primarily designed to provide a gas or vapor tight barrier between the wearer and atmospheric contaminants. Therefore Level A is generally worn when high concentrations of airborne substances could severely effect the skin. Since Level A requires the use of a self-contained breathing apparatus, the eyes and respiratory system are also more protected.

Until air surveillance data becomes available to assist in the selection of the appropriate Level of Protection, the use of Level A may have to be based on indirect evidence of the potential for atmospheric contamination or other means of skin contact with severe skin affecting substances.

Conditions that may require Level A Protection include:

- Confined spaces: Enclosed, confined, or poorly ventilated areas are conducive to the build up of toxic vapors, gases, or particulates. (Explosive or oxygen-deficient atmospheres also are more probable in confined spaces). Confined space entry does not automatically warrant wearing Level A Protection, but should serve as a cue to carefully consider and to justify a lower level of protection.
- Suspected/known highly toxic substances: Various substances that are highly toxic especially skin absorption for example, fuming corrosives, cyanide compounds, concentrated pesticides. Department of Transportation Poison "A" materials, suspected carcinogens, and infectious substances may be known or suspected to be involved. Field instruments may not be available to detect or quantify air concentrations of these materials. Until these substances are identified and concentrations measured, maximum protection may be necessary.
- Visible emissions: Visible air emissions from leaking containers or railroad/vehicular tank cars, as well as smoke from chemical fires and others, indicate high potential for concentrations of substances that could be extreme respiratory or skin hazards.
- Job Functions: Initial site entries are generally walk-throughs in which instruments and visual observations are used to make a preliminary evaluation of the hazards. In initial site entries, Level A should be worn when:

- ~ There is a probability for exposure to high concentrations of vapors, gases, or particulates.
- ~ Substances are known or suspected of being extremely toxic directly to the skin or by being absorbed.

Subsequent entries are to conduct the many activities needed to reduce the environmental impact of the incident. Levels of protection for later operations are based not only on data obtained from the initial and subsequent environmental monitoring, but also on the probability of contamination and ease of decontamination.

Examples of situations where Level A has been worn are:

- Excavating of soil to sample buried drums suspected of containing high concentrations of dioxin.
 - Entering a cloud of chlorine to repair a valve broken in a railroad accident.
 - Handling and moving drums known to contain waste.
 - Responding to accidents involving cyanide, arsenic, and undiluted pesticides.
2. The fully encapsulating suit provides the highest degree of protection to skin, eyes, and respiratory system if the suit material resists chemicals during the time the suit is worn. While Level A provides maximum protection, all suit material may be rapidly permeated and degraded by certain chemicals from extremely high air concentrations, splashes, or immersion of boots or gloves in concentrated liquids or sludges. These limitations should be recognized when specifying the type of fully encapsulating suit. Whenever possible, the suit material should be matched with the substance it is used to protect against.

4.3 Level B Protection

A. Personal Protective Equipment

- Pressure-demand, self-contained breathing apparatus (MSHA/NIOSH approved).

or

- Pressure-demand, airline respirator (with escape bottle for IDLM or potential for LDH, atmosphere) OSHA/NIOSH approved.
- Chemical resistant clothing (overalls and long sleeved jacket; coveralls or hooded, one or two-piece chemical-splash suit; disposable chemical resistant one-piece suits).
- Coveralls
- Gloves (outer), chemical resistant
- Gloves (inner), chemical resistant
- Boots (inner), leather work shoe with steel toe and shank
- Boots (outer), chemical resistant (disposable*)
- Hard Hat (face shield*)
- Taping between suit and gloves, and suit and boots

* Optional

B. Criteria for Selection

Anyone of the following conditions warrants use of Level B Protection:

- 1) The type and atmospheric concentration of toxic substances have been identified and require a high level of respiratory protection. These would be atmospheres:
 - ~ With concentrations Immediately Dangerous to Life and Health (IDLH)
 - or
 - ~ Exceeding limits of protection afforded by a full-face, air-purifying mask
 - or
 - ~ Containing substances for which air-purifying canisters do not exist or have low removal efficiency

or

- Containing substances requiring air-supplied equipment, but substances and/or concentrations do not represent a serious skin hazard.
- 2) The atmosphere contains less than 19.5% oxygen.
- 3) Site operations make it highly unlikely that the small, unprotected area of the head or neck will be contacted by splashes of extremely hazardous substances.
- 4) Working in confined spaces.

C. Guidance on Selection Criteria

Level B equipment provides a high level of protection to the respiratory tract, but a somewhat lower level of protection to skin than Level A. The chemical resistant clothing required in Level B is available in a wide variety of styles, materials, construction detail, permeability, etc. These factors all affect the degree of protection afforded. Therefore, the Safety Officer should select the most effective chemical resistant clothing based on the known or anticipated hazards and/or job function. (It is anticipated that Level A Protection will not be required under this contract.)

Generally, if a self-contained breathing apparatus is required, Level B clothing rather than a fully encapsulating suit (Level A) is selected based on needing less protection against known or anticipated substances affecting the skin. Level B skin protection is selected by:

- Comparing the concentrations of known or identified substances in air with skin toxicity data.
- Determining the presence of substances that are destructive to and/or readily absorbed through the skin by liquid splashes, unexpected high levels of gases, vapor or particulates, or other means of direct contact.
- Assessing the effect of the substance (at its measured air concentrations or splash potential) on the small area of the head and neck unprotected by chemical resistant clothing.

4.4 Level C Protection

A. Personal Protective Equipment

- Full-face, air-purifying, canister-equipped respirator (MSHA/NIOSH approved) for acid/gas/organic vapor with particulate filter.
- Chemical resistant clothing (overalls and long sleeved jacket; coveralls or hooded, one or two-piece chemical-splash suit; disposable chemical resistant one-piece suits).
- Coveralls
- Gloves (outer), chemical resistant
- Gloves (inner), chemical resistant
- Boots (inner), leather work shoe with steel toe and shank
- Boots (outer), chemical resistant (disposable*)
- Hard Hat (face shield*)
- Taping between suit and gloves, and suit and boots

* Optional

B. Criteria for Selection

Meeting all of these criteria permits use of Level C Protection.

- Measured air concentration of identified substances will be reduced by the respirator to, at, or below the substance's Threshold Limit Value (TLV)/Permissible Exposure Limits (PEL) and the concentration is within the service limit of the canister.
- Atmospheric contaminant concentrations do not exceed IDLH levels or canister limitations.
- Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect the small area of skin left unprotected by chemical resistant clothing.
- Oxygen level $\geq 19.5\%$.

4.5 Level D Protection

A. Personal Protective Equipment

- Coveralls
- Leather, steel-toed boots
- As required:
 - Hard hat
 - Safety glasses/goggles
 - Hearing protection
 - Gloves

B. Criteria for Selection

Meeting all of these criteria permits the use of Level D Protection.

- Measured air concentrations of identified substances are below the substances Permissible Exposure Limit (PEL) or TLV.
- Oxygen content is $\geq 19.5\%$.
- No unknown substances are present.

5.0 DECONTAMINATION

It is expected that the highest level of protection used at the Accurate Die Casting site will be Level B. A decontamination zone will be set-up at the entrance of the site. Based on the level of expected exposure to contaminants, the following decontamination protocol will be used:

5.1 Personnel Decontamination

Station 1: Equipment Drop

Deposit equipment used on-site (i.e., tools, monitoring equipment, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination.

Station 2: Glove and Boot Wash

In the event of contamination to the outer gloves and boots, scrub with detergent water. Rinse off using water.

Station 3: Glove, Boot, and Outer Garment Removal

Disposable gloves and other disposable garments will be removed and placed in plastic bags. Durable type PVC outer boots will be placed on a sheet of plastic for review of possible further decontamination with reuse.

Station 4: Face Piece Removal

Face piece is removed. Avoid touching face with fingers. Face piece deposited on plastic sheet.

Station 5: Hands and Face are Thoroughly Washed

All decontamination waste waters will be collected and disposed of according to applicable regulations. This disposal will be done at the direction of the Project Supervisor or Project Manager.

In general, decontamination involves scrubbing with a non-phosphate soap/water solution followed by clean water rinses. All disposable items will be disposed of in a dry container. Certain parts of contaminated respirators, such as harness assemblies and leather or cloth components, are difficult to decontaminate. If grossly contaminated, they may have to be discarded. Rubber components can be soaked in soap and water and scrubbed with a brush. In addition to being decontaminated, all respirators, non-disposable protective clothing, and other personal articles must be sanitized before

they can be used again unless they are assigned to individuals. The manufacturer's instructions should be followed in sanitizing the respirator masks. The Site Safety Officer will be responsible for supervising the proper protective equipment.

5.2 Equipment Decontamination

Decontamination will be applicable to all activities on-site and contamination reductions zone (CRZ). All equipment (i.e., tools, monitoring equipment, etc.) will receive initial decontamination. All equipment which has been in contact with contaminants shall be stored in an area within the limits of the existing exclusion zone or shall be thoroughly decontaminated prior to leaving the work area. Decontamination will consist of cleaning of the entire piece of equipment to the satisfaction of the Site Supervisor or the responsible Quality Assurance Personnel. All dirt, oil, grease, or other foreign materials that are visible will be removed from metal surfaces. Scrubbing with a wire brush may be required to remove materials that adhere to the surfaces.

Decontamination will take place inside the exclusion area. All equipment will be stored on plastic sheeting above ground. All decontamination waters will be collected and disposed of in accordance with applicable regulations. Equipment not in use will be covered with plastic and stored at a designated storage area.

Air monitoring equipment will be protected with an outer coating (i.e., plastic) prior to the initial entry into the exclusion zone. Decontamination will then consist of removal of the protective coating in a manner that will not contaminate the air monitoring equipment.

Note: Any changes to the decontamination procedures listed in this section will be approved by the Site Safety and Health Officer.

6.0 SITE AIR MONITORING

Field activities associated with the removal and disposal at the Accurate Die Casting site may pose hazardous conditions, such as the release of hazardous substances into the workers' breathing zone. These substances may be in the form of vapors, dusts, or mists that can enter the body through ingestion, inhalation, or direct skin or eye contact. If the Health and Safety Officer, relying on observations and odor, determines that a condition exists in which workers may be exposed to airborne hazardous materials. Then monitoring of these substances will be performed to ensure appropriate personal protective measures are employed during site activities.

The following describes the monitoring parameters to be evaluated during the initial walk-through. All instruments to be used during site activities will meet the established requirements set forth by OSHA, MSHA, NIOSH, and state agencies where applicable.

6.1 Initial Determinations

Observations will be made during the site walk-through with direct reading organic vapor meters, combustible gas indicators, and oxygen detectors, etc.

After the initial site walk-through, it is anticipated that organic vapors will need periodic monitoring. Organic vapor concentrations will be used for upgrading or downgrading protective equipment and implementing additional precautions or procedures (See Table 2, Action Levels).

All site monitoring will be conducted by or under the direction of the Site Health and Safety Officer or his designated representative. All readings obtained will be recorded in a dedicated site notebook maintained by the Project Supervisor or designate. The Site Health and Safety Officer or designated representative will maintain all monitoring instruments throughout the site investigation to ensure their reliability and proper operation.

7.0 ACTION LEVELS

Action levels have been established for activity cessation, site evacuation, emergency response, and the upgrade or downgrade in the levels of personal protective equipment. Table 2 lists the action levels, airborne concentrations and their respective personal protection. Section 8.0 discusses the minimal personal protection required for specified site activities based on current information. Changes to these specified levels are dependent on the results of air monitoring, as described below.

Note that these action levels are for monitoring in the breathing space of workers on the site. The action levels are based on the 1989 Permissible Exposure Limits (PELS) as determined by OSHA for the specific compounds detected during on-site monitoring.

The approach for air monitoring and the establishment of appropriate action levels is as follows:

- 1) The initial walk-through of the site will include the use of a PID organic vapor detector (Model HNu or equivalent) for the purpose of determining ambient or baseline air contaminant data for Accurate Die Casting facility activities.
- 2) The direct-reading PID will be calibrated to most accurately reflect the scope of volatiles identified.
- 3) Using the PID, work activities will be monitored for organic vapors.
- 4) When organic vapors are detected with the PID, action levels would then follow the first column of Table 2.

8.0 SITE ACTIVITIES AND ASSOCIATED PERSONNEL PROTECTIVE REQUIREMENTS

The levels of protection assigned to each activity (below) represent a best estimate of exposure potential and protective equipment needed for that exposure. The site safety officer will revise those levels of protection, up or down, based on air monitoring results and on-site assessment of actual exposures.

<u>Area of Activity</u>	<u>Level of Protection</u>
1) Drum Staging	Level C with OV/AG Filters ¹
2) Drum Sampling	Level C with OV/AG Filters ¹
3) Repackaging of Wastes	Level C with OV/AG Filters ¹
4) Decommissioning of Vapor Degreasing System	Level B ²

-
1. Level C will be utilized only if the action levels for Level C have been met. Otherwise, Level B will be utilized.
 2. High levels of trichloroethylene are anticipated.

Note: The site Safety and Health Officer can make changes to the levels of protection required based on the identification of known substances and any required changes to the scope of the work.

9.0 CONTINGENCY PLAN

The Project Supervisor is responsible for implementing the Contingency Plan whenever there is either a threat to human health or an environmental hazard. Possible such situations include actual or imminent fires, explosions or spills.

The individual discovering the emergency situation is to notify the Project Supervisor who will then notify the appropriate organizations as described in Table 3.

9.1 Assessment

The Project Supervisor is responsible for ascertaining any possible health or environmental hazards and determining the need for evacuation and notification of the proper authorities.

9.2 Control Procedure

The employee discovering a fire, explosion, spill or other emergency situation is responsible for notifying the Project Supervisor and as much as possible, provide the information listed in Section 3.0. The Coordinator will access the situation to determine if it can be adequately handled by plant personnel or if additional assistance is needed.

Before any employee attempts to extinguish a fire, clean-up and contain a spill or take any other action, he or she must be aware of the properties of the material involved and its associated hazards. All employees are familiarized with this information during their training period and are instructed on the proper protective clothing to be worn in such a situation.

Table 1 names the current emergency response coordinator and includes a list of the organizations that are available to provide emergency assistance. (Located at front guard shack.)

9.3 Fire and/or Explosion

The most serious emergency situation that could be faced by the Accurate Die Casting site would be a chemical release or major fire. In the event of a fire or explosion, the Project Supervisor should be notified as described in the preceding section. The Coordinator is responsible for determining the requirements for outside assistance as well as the necessity for facility evacuation.

The Fire Department should be notified immediately once a fire is detected. Small fires can be extinguished using a fire extinguisher located throughout the facility. Larger fires will require the assistance of the fire department. The fire department

will be informed of the nature of the wastes handled on the Accurate Die Casting property and that water is not an adequate extinguishing material. Foam will be required to extinguish major fires at the Accurate Die Casting facility.

Any contaminated structures or equipment must be properly cleaned before being returned to service. Decontamination procedures are described in Section 9.4.

9.4 Spill and/or Material Releases

The procedure for notification of the Project Supervisor and the appropriate authorities was described in Section 9.2. In addition, Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, or Superfund) requires that the National Response Center be notified of any release in excess of the reportable quantity of a listed hazardous material.

Spill clean-up poses no danger under normal conditions. The first step is to determine the source of the spill and correct it which would normally involve patching a leaking drum, closing a valve or turning off a pump. In the event of a small spill, absorbent granules or sorbent pads will be utilized to soak up the spilled material. Absorbent materials are kept in designated storage locations in the facility. The granules would then be swept up and containerized in Department of Transportation approved drums.

On-site equipment, i.e., pumps and vacuum trucks, would be put into service to transfer the spilled material from the collection area into the storage tanks. This equipment is always kept on-site and can be implemented in the event of a large spill. Final clean-up of residuals would involve the use of adsorbents as described for a small spill. Once the cause of the spill is determined and restorative work is complete, the recovered waste could be transferred back into the storage tanks or drums. All sorbent materials would be placed in DOT approved drums.

Any contaminated structures and equipment must be properly cleaned before being returned to service. This procedure will include use of pressure washers and sorbent materials. All affected floors and equipment, pumps and hoses, will be cleaned with detergent.

9.5 Prevention of Recurrence or Spread of Fires, Explosions or Releases

The recurrence or spread of fires, explosions and releases will be prevented by the specific actions detailed in Section 9.2. In the event of any such emergency situation, operations at the Accurate Die Casting facility will be suspended until it is determined that no risk remains. All response actions are to be taken with the primary objective of protecting human health and safety, and then the environment. The cause and subsequent handling of any emergencies that occur at the Accurate Die Casting site will be methodically reviewed in order to prevent future occurrences.

9.6 Post-Emergency Equipment Maintenance

After an emergency situation, any emergency equipment that was used will be decontaminated or replaced.

Equipment needed for decontamination would be: sorbent (such as Speedi-Dry), broom, shovel, rags, detergent, degreaser, water, rinse basin, protective clothing, containers for disposal.

Decontamination of equipment involves these steps:

- 1) Wash thoroughly with detergent and, if necessary, degrease.
- 2) Rinse with water.
- 3) Collect all detergent, degreaser, and rinse water. Drum all contaminated disposables, such as sorbents and protective clothing.

Before operations are resumed, state, local and regional administrators must be notified that clean-up and decontamination activities were performed and that operations will resume.

9.7 Container Spills and Leakage

Emergency response procedures for container spills and leakage are specified in Section 9.4.

9.8 Tank Spills and Leakage

Emergency response procedures for spills or leaks from the storage tanks or transfer lines are described in Section 9.4.

10.0 WORK AREAS

Environmental Products & Services, Inc. will clearly layout and identify work areas in the field and will limit equipment, operations, and personnel as defined in the following areas:

- a) "Exclusion Zone" - This area will include all areas where environmental monitoring has shown or it is suspected that a potential hazard may exist to workers. The level of personnel protective equipment required in these areas will be determined by the Safety Officer after air monitoring and on-site inspection has been conducted. The area will be clearly delineated from the decontamination area. As work within the hazardous zone proceeds, the delineating boundary will be relocated as necessary to prevent the accidental contamination of nearby people and equipment. The Exclusion Zone will be delineated by fencing (e.g., chain link, snow, or orange plastic fencing).
- b) Contamination Reduction Zone (CRZ) - This zone will occur at the interface of "Hazardous" and "Clean" areas and will provide for the transfer of equipment and materials from the Clean Area to the Exclusion Zone, the decontamination of transport vehicles prior to entering the "Clean" area, the decontamination of personnel and clothing prior to entering the "Clean" area, and for the physical segregation of the "Clean" and "Hazardous" areas. This area will contain all required emergency equipment, etc. This area will be clearly delineated by fencing (e.g., chain link, snow, or orange plastic fencing). It shall also delineate an area that although not contaminated at a particular time may become so at a later date.
- c) Support Zone ("Clean" Area) - This area is the remainder of the work site and project site. The "Clean" area will be clearly delineated and procedures implemented to prevent active or passive contamination from the work site. The function of the "Clean" area includes:
 - 1) An entry area for personnel, material, and equipment to the "Hazardous" area of site operations through the neutral zone.
 - 2) An exit for decontamination personnel, materials, and equipment from the "Decontamination" area of site operations.
 - 3) The housing of site special services; and
 - 4) A clean storage area for safety and work equipment.

11.0 SAFETY EQUIPMENT AND PROTECTIVE CLOTHING SPECIFICATIONS

Environmental Products & Services, Inc. shall provide all project personnel with the necessary safety equipment and protective clothing, taking into consideration the chemical wastes at the site. Environmental Products & Services, Inc. will supply all Environmental Products & Services, Inc. project personnel with the following:

- 1) Sufficient amounts of disposable Saranex monkey suits and polycoated Tyvek
- 2) One pair splash goggles
- 3) Hard hat with splash shield
- 4) Outer gloves (Neoprene)
- 5) Inner gloves (surgical, cotton liners)
- 6) PVC Overboots
- 7) Full face/half face mask equipped with organic vapor/acid gas cartridges
- 8) For project personnel involved with Level B protection, a positive pressure self-contained breathing apparatus or in-line air

12.0 AIR EMISSIONS CONTROL

Environmental Products & Services, Inc. shall provide all equipment and personnel necessary to monitor and control air emissions.

13.0 ADDITIONAL HEALTH AND SAFETY COMMENTS

- 1) Environmental Products & Services, Inc. will ensure that all safety equipment and protective clothing is kept clean and well maintained.
- 2) All prescription eyeglasses in use on this project will be safety glasses and will be compatible with respirators. No contact lenses shall be allowed on-site.
- 3) All disposable or reusable gloves worn on the site will be approved by the Safety Officer.
- 4) During periods of prolonged respirator usage in contaminated areas, respirator filters will be changed upon breakthrough. Respirator filters will always be changed daily.
- 5) Footwear used on-site will be covered by rubber overboots when entering or working in the "Exclusion Zone" area or "Contamination Reduction Zone." Boots will be washed with water and detergents to remove dirt and contaminated sediment before leaving the "Exclusion Zone" or Contamination Reduction Zone."
- 6) All personal protective equipment used on-site will be decontaminated or disposed of at the end of the work day.
- 7) All respirators will be individually assigned and not interchanged between workers without cleaning and sanitizing.
- 8) Contractor, subcontractor, and service personnel unable to pass a fit test as a result of facial hair or facial configuration shall not enter or work in an area that requires respiratory protection.
- 9) The contractor will ensure that all project personnel shall have vision or corrected vision to at least 20/40 in one eye.
- 10) On-site personnel found to be disregarding any provision of this plan will, at the request of the Safety Officer, be barred from the project.
- 11) Used disposable outerwear will be removed upon leaving the hazardous work zone and will be placed inside disposable containers provided for that purpose. These containers will be stored at the site at the designated staging area.

- 12) Polycoated Tyvek/Saranax suits which become torn or badly soiled will be replaced immediately.
- 13) Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited in the hazardous work zones and neutral zones.
- 14) All personnel will thoroughly cleanse their hands, face, forearms, and other exposed areas prior to eating, smoking, or drinking.
- 15) Workers, who have worked in a hazardous work zone will shower at the completion of the work day.
- 16) All personnel will wash their hands, face, and forearms before using toilet facilities.
- 17) No alcohol, firearms, or drugs (without prescriptions) will be allowed on-site at any time.

14.0 MISCELLANEOUS HEALTH AND SAFETY ITEMS

14.1 Heat Stress*

Pervious Clothing: When the ambient air temperature had exceeded 80° F. for one hour, the Safety Officer will begin to monitor employees for signs of heat stress. Monitoring will take the form of measuring oral temperatures. As the air temperature will be measured after every shift at a minimum or as determined by the Safety Officer.

Impervious Clothing: When the ambient air temperature has exceed 70° F. for one hour, the Safety Officer will begin to monitor employees for signs of heat stress. Monitoring will take the form of measuring oral temperatures. As the air temperature exceeds 85° F., oral temperatures will be measured after every shift at a minimum or as determined by the Safety Officer.

In the event that the oral temperature at the beginning of the rest period exceeds 100° F., the employee will be decontaminated and be advised to proceed to an air conditioned room or to apply cool wet cloths to his/her head and neck areas and to drink some fluids. At the end of the rest period, the oral temperature will be taken again to ensure that the employee's temperature is below 100° F. If the oral temperature has remained above 100° F., the employee will be advised to take a shower to reduce his/her temperature. However, if the oral temperature still remains above 100° F. after the shower, the employee will be immediately sent to consult with a physician.

A fluid/electrolyte replacement will be used as necessary to minimize fluid loss. This liquid supplement will be stored in a cooler at the edge of the decontamination zone in plastic squeeze bottles. The plastic bottles will be marked with individual's names. Disposable cups with lids and straws may be used in place of the squeeze bottles. Prior to drinking within the decontamination zone the project personnel shall follow the following decontamination procedures:

- 1) Personnel shall wash and rinse their outer gloves and remove them.
- 2) Personnel shall remove their hard hats and respirators and place on a table.
- 3) Personnel shall remove their inner gloves and place them on a table.
- 4) Personnel shall wash and rinse their face and hands.
- 5) Personnel shall carefully remove their personal bottle or cup from the cooler to ensure that their outer clothes do not touch any bottles, cups, etc.

- 6) The used bottle or cups will not be returned to the cooler, but will be placed in a receptacle or container to be cleaned or disposed of.
- 7) Personnel shall replace their respirators, hard hats, gloves, and tape gloves prior to re-entering the hazardous zone.

* It is not anticipated that heat stress will play a role in this project due to the winter season.

14.2 Retention On-Site

The facility is secured, therefore, materials and equipment can be left on-site during site operations.

14.3 Equipment and Materials Decontamination Facility

All equipment and material used in this project shall be thoroughly washed down in accordance with established Federal and State procedures before it is removed from the project. With the exception of the excavated materials, all other contaminated debris, clothing, etc., which cannot be decontaminated shall be disposed of.

14.4 Communications

Outside communications will be performed using the Environmental Products & Services, Inc. mobile telephone. Emergency phone numbers will be posted at the guard shack. Internal hand signals will be accomplished using established using established hand signals.

14.5 Security

24-hour security guards will be provided by FTT.

14.6 On-Site Hygiene Facility

On-site hygiene will be accomplished utilizing the portable facility at the guard shack.

14.7 Cold Exposure

The Accurate Die Casting building is not heated, so temperatures below freezing in the building can be anticipated. Personnel should be instructed to wear warm clothing. Frostbite and hypothermia will be addressed to all personnel in the safety briefings.

15.0 SAFETY MEETINGS

The Health & Safety officer or his designated representative will conduct safety meetings which will be mandatory for all project personnel. The meetings will provide a refresher course for existing equipment and protocols, and will examine new site conditions as they are encountered.

Additional safety meetings will be held on an as required basis.

16.0 MEDICAL SURVEILLANCE

Environmental Products & Services, Inc. retains Riverfront Medical Services to ensure that it is in compliance with the Medical Monitoring Program that is outlined in 29CFR 1910.134. The pre-employment physical includes, but is not limited to, the following:

1. Complete blood profile.
2. Blood chemistry to include: chloride, CO₂, potassium, sodium, BUN, glucose, globulin, total protein, albumin, calcium, cholesterol, alkaline phosphates, triglycerides, uric acid, creatinine, total bilirubin, phosphorus, lactic dehydrogenase, SGPT, SGOT, lead, and PCBs.
3. Urine analysis.
4. "Hands on" physical examination to include a complete evaluation of all organ systems including any follow-up appointments deemed necessary in the clinical judgement of the examining physician to monitor any chronic conditions or abnormalities.
5. Electrocardiogram*
6. Chest X-ray*
7. Pulmonary function
8. Tetanus booster shot* (if no inoculation has been received within the last five years).

* If recommended by examining physician in accordance with good medical practice.

Environmental Products & Services, Inc. also conducts annual exams and termination exams in accordance with 29CFR 1910.134. All operations personnel will be enrolled in the Environmental Products & Services, Inc. Medical Monitoring Program.

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TABLE 1

A. Known and Potential Site Hazards: *Chemical*

1) Contaminants - The following chemical hazards are likely to be present at the Accurate Die Casting facility.

a) Drum/Miscellaneous Staging/Sampling

- Chlorinated solvents
- Non-chlorinated solvents
- Heavy metals
- Lubricating oils
- Acids
- Caustics

b) Degreaser

- Trichloroethylene (Pel 100 ppm)*

c) Loading Dock

- Trichloroethylene

d) Outside Tanks

- Trichloroethylene

* Known carcinogen, volatile organic substance.

2) Review of Symptoms

Symptoms of exposure to hazardous wastes and in particular to the contaminants above will be reviewed with all site personnel. Symptoms of both acute and chronic exposures will be covered. In addition, the on-site coordinators will be advised to watch for outward evidence of changes in workers' health. These outward symptoms may include fatigue, loss of appetite, nervousness or irritability, skin irritation or discoloration, eye irritation, or muscular soreness.

Note that the number and nature of potential contaminants mandate that contact of waste materials with the exposed skin must not be allowed to occur under any circumstances.

B. Known and Potential Site Hazards: *Non-Chemical*

- Scrap metal with sharp edges
- Oils on floors (slipping hazard)
- Dangling overhead equipment
- Guard dogs
- Questionable electrical equipment
- Cold exposure

TABLE 2

Action Levels

Maximum Total Organic Vapors in Breathing Zone	Level of Protection
< 10 ppm	Level D
>10 < 1000	Level C, OV/AG Cartridge
> 1000	Level B

Note: Unknown organic vapor action levels are based on the lowest known exposure limits for benzene (PEL = 1 ppm, IDLH = 30 ppm). The air purifying cartridge limitation for benzene is 1000 ppm. Action level concentrations are based on ambient air conditions.

TABLE 3

EMERGENCY CALL LIST (Posted in work area and office)

Fires - Spills

Fire 315-425-333
NYS DEC (Spills) 800-457-7362

Public Services

Public Health Advisor 315-469-6955
Police 315-425-2333

Injuries

Hospital 315-473-5611

SPILL NOTIFICATION

Agencies

NYS DEC Spill Hotline	800-457-7362
National Response Center	800-424-8802
Local DEC Office (Region 7)	315-426-7400

Provide the following information to the agencies:

- Name of person making call
- Company and location
- Nature of fire (fire calls only)
- Name and estimated amount of chemical released to the environment (spills only)
- Time of release
- Remedial action taken to correct the problem