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SAFETY AND HEALTH PLAN

1. INTRODUCTION

This Safety and Health Plan (SAHP) has been written for use by MSW Consultants, LLC, (MSW Consultants) personnel, their subcontractors, and any other individuals authorized access to areas where site control is established to conduct field work associated with the performance of a physical or visual composition study of municipal solid wastes.

It should be noted that PPE requirements as suggested by OSHA in response to the coronavirus (COVID-19) have been a standard requirement by MSW Consultants on all projects pre-dating this pandemic. Such PPE will continue to be required on all projects going forward. Added text has been inserted in the SAHP below that include additional measures to be undertaken that have been implemented since COVID-19¹.

MSW Consultants is responsible for the physical sampling and sorting at facilities, therefore this HASP concentrates on the essential safety aspects for physical sorting. While physical sampling and sorting will be performed by MSW Consultants, it is expected that anyone entering the field will follow MSW's Health and Safety Plan.

MSW Consultants does not guarantee the health and safety of any person entering the designated work areas. Because of the nature of this work and the activity occurring therein, it is not possible to discover, evaluate, and provide protection for all possible hazards that may be encountered. Strict adherence to these health and safety guidelines will reduce, but not eliminate, the potential for injury or exposure to hazards on the site. The health and safety guidelines in this plan were prepared generally for this type of field activity. It may be necessary to refine this plan for each individual project, depending on local site characteristics and job requirements.

The following practices are included in this document:

- ◆ Safety and health framework at host municipal solid waste facilities;
- ◆ Sampling hazard evaluation and controls;
- ◆ Sorting hazard evaluation and controls;
- ◆ Fundamental safe work practices including site controls;
- ◆ Personnel protective equipment (PPE) applicable the field work; and
- ◆ Emergency response procedures.

A copy of this SAHP will be maintained by the MSW Consultants Field Supervisor at all times while field operations are in progress. A copy of the SAHP will be provided to the client, facility management, subcontractors, and other project stakeholders at their request. Each employee (MSW Consultants or subcontractor) is required to receive basic training on the safety and health principals and procedures contained herein at the outset of the project and sign a release documenting receipt of such training.

¹ Cdc.gov/coronavirus

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1.1. STATEMENT OF SAFETY AND HEALTH POLICY

It is the policy of MSW Consultants to conduct all work in a manner that minimizes the physical and chemical/biological hazards to which workers might be exposed in the course of their work. MSW consultants also will conduct emergency planning in such a way as to minimize the consequences of any accident or exposure for their employees and subcontractors. MSW Consultants will provide adequate training and supervision to all employees performing work on a given project and will be responsible for ensuring all employees and subcontractors follow the provisions of the Safety and Health Plan developed for that project.

Safety is basic or inherent to the work performed by MSW Consultants. Each employee (MSW Consultants or subcontractor) is held accountable and responsible for working safely, including following the procedures and guidance of this SAHP. All employees are required to comply with applicable safety regulations. Individuals who do not follow the procedure and guidance of this SAHP are subject to removal from the site and project.

In addition to this policy, MSW Consultants will hold the project and corporate staff responsible for the safe conduct of work during this project, according to the roles and responsibilities described herein. Any willful violation of the provisions of this plan is grounds for immediate discipline or dismissal.

2. PROGRAM MANAGEMENT

Safety is an essential part of field operations management function and responsibility. It is the responsibility of MSW Consultants designated field operations manager to see that each person under this project understands and complies with all safety rules and requirements. This section presents the general background and guidelines for implementing and complying with safety and health requirements for waste composition studies.

2.1. BACKGROUND INFORMATION

Contractor: MSW Consultants, LLC
Corporate Address: 11875 High Tech Avenue
Suite 150
Orlando, FL 32817
Phone: (800) 679-9220

Designated Field Supervisor:

Client:

Brief Project Name:

Brief Project Description:

2.2. SAFETY AND HEALTH FRAMEWORK

Figure 2-1 summarizes the three layers of organizations/personnel that are typically involved safety and health plan compliance for waste composition projects. One unique aspect to the performance of a waste composition study is that the project is typically hosted by a permitted solid waste management facility. Such facilities are required to have detailed safety and health plans, accident prevention plans, accident reporting plans, emergency response plans, and other procedures and policies in place to minimize risks associated with handling municipal solid waste in an operating environment with noise, dust, heavy machinery, and other risks. For this reason, it is MSW Consultants' policy first and foremost to obtain, review, and comply with the safety and health framework that exists at the facility hosting the project. In the absence of the Field Supervisor due to sampling activities, the Crew Chief fulfills the associated responsibilities.

Figure 2-1 Safety and Health Plan Framework



Occasionally, procedural conflicts may arise between the host facility safety and health procedures and processes and MSW Consultants' site controls. In these instances, the requirement most protective of worker health and safety, the public, and property shall take precedence.

The remainder of this section identifies task organization and personnel responsibilities for the management and implementation of this SAHP. It also specifies the training and physical qualifications of employees performing the work. Accident reporting, recordkeeping, and emergency planning also are discussed in this section of the SAHP:

2.3. SUBCONTRACTORS

MSW Consultants does not subcontract for the performance of waste composition data collection, save for the use of temporary employment agencies to supply light industrial temporary laborers. Although these temporary staffing agencies may maintain corporate safety records and/or safety program statistics, such data is tracked only at the corporate level and is not considered in the pre-qualification of light industrial temporary staff to assist on waste composition data collection projects. MSW Consultants does not review safety training documents, safety programs or safety metrics from

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these agencies because MSW Consultants supplies this training and documentation, as described in the following section.

2.4. TRAINING REQUIREMENTS

2.4.1 MSW EMPLOYEES

MSW management and field supervisory personnel will be provided basic training on general health and safety, as well as receive first aid training provided by the U.S. Red Cross. Records pertaining to management and field supervisory personnel training will be kept as part of each employee's permanent employee records.

2.4.2 FACILITY-SPECIFIC TRAINING (EMPLOYEES AND SUBCONTRACTORS)

If required by the host facility, all MSW Consultant employees and subcontractors will participate in a training program provided by the host facility.

The following training will be provided by MSW Consultants Field Supervisor or Crew Chief staff at the outset of the project and prior to conducting any field operations. This training is intended to be provided verbally in the form of tailgate meetings or roundtable discussions with the field employees.

- ◆ Understanding the SAHP;
- ◆ Personal protective equipment and use;
- ◆ Physical, chemical, and biological hazards and prevention;
- ◆ Site access and control;
- ◆ Roles and responsibilities;
- ◆ Accident prevention and reporting; and
- ◆ Emergency procedures.

Upon completion of the training program, all participants will be required to sign the Plan Approval and Sign-off Form (Appendix A). Plan Approval and Sign-off forms will be kept for a minimum of three years.

2.5. CLIENT PERSONNEL AND VISITORS

Client personnel other than those already working at the host facility and other visitors must obtain clearance from both the host facility management and from the MSW Consultants Field Supervisor before obtaining access to controlled work areas. Visitors will receive a job-specific safety briefing. Visitors in areas requiring PPE must have the equivalent training and PPE as the on-site worker to gain entry. MSW Consultants is not responsible for distributing or obtaining PPE for visitors, or training visitors or client personnel on proper use of PPE, unless otherwise agreed to prior to the project.

2.6. PHYSICAL QUALIFICATION OF EMPLOYEES

All personnel associated with the sampling and handling of the materials collected from the field for this project will be trained in their safe handling. All personnel involved in the performance of physical

work will be physically fit and demonstrate their ability to perform their duties. The MSW Consultants Field Supervisor can prohibit any person from performing work at the site should there be a question as to their fitness for duty.

As staffing reports for duty at the pre-determined location, MSW professional staff will utilize an infrared thermometer to detect the individual's temperature and assess the existence of any other symptoms. According to the Centers for Disease Control and Prevention (CDC), the following symptoms are the most common, and most likely appear 2-14 days after exposure:

- Fever
- Cough
- Shortness of breath

Any person reporting for work that demonstrates symptoms of COVID-19 will be sent home until they can be tested. Please do not report to work if you experience any of these symptoms at home.

2.7. ROLES AND RESPONSIBILITIES

2.7.1 CORPORATE SAFETY AND HEALTH MANAGERS

MSW Consultants principals Walt Davenport and John Culbertson are responsible for the health and safety of all MSW Consultants employees. As officers of the company, their role entails:

- ◆ Oversee maintenance and implementation of the MSW Consultants Safety and Health Program;
- ◆ Provide project personnel with technical guidance for conducting field work in a safe and healthful manner;
- ◆ Assist with preparation, or review and approval of project health and safety documents;
- ◆ Assign adequate levels of support;
- ◆ Interact with contracts personnel to verify that subcontractors are informed and can meet MSW Consultants health and safety requirements for this work;
- ◆ Conduct field inspections, as necessary, in accordance with MSW Consultants policies and procedures, and to verify that action plans are developed to correct any deficiencies; and
- ◆ Confirm adequate documentation of all of the above aspects of the safety program.

2.7.2 FIELD SUPERVISOR

The Field Supervisor will be assigned on a project by project basis and will be trained and knowledgeable in the MSW Consultants SAHP as well as the host facility health and safety requirements. This position will be required to:

- ◆ Administer the SAHP for the specific project and coordinate any amendments to the SAHP with the MSW Consultants Health and Safety Managers;
- ◆ Verify current certifications of individuals' fitness and training prior to authorizing access to areas where site control is established;
- ◆ Conduct emergency planning actions such as interfacing with emergency providers, assessing emergency supplies, assessing possible emergency needs;
- ◆ Verify availability of health and safety equipment on site in accordance with the SAHP;

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- ◆ Verify that copies of plans and regulations are available at the site;
- ◆ Conduct employee health and safety orientations prior to the start of field activities;
- ◆ Conduct pre-screening of staff at the start of each work shift
- ◆ Monitor field activities including ongoing practice of social distancing, PPE usage and disinfection and cleaning of work space, as appropriate;
- ◆ Establish and enforce site controls;
- ◆ Assist in independent health and safety site audits conducted by MSW Consultants Corporate Personnel, regulatory agencies, or the host solid waste management facility;
- ◆ Conduct accident investigations of injuries, illnesses, and near misses and to ensure the completion of associated documentation;
- ◆ Possess first aid training;
- ◆ Exercise “stop work authority” when an imminent hazard or potentially dangerous work practice exists; and
- ◆ Complete and submit recordkeeping forms mandated by the SAHP.

2.7.3 SUBCONTRACTORS

MSW Consultants has historically relied on temporary light-industrial staffing agencies to supply the sorting laborers needed to perform the physical sorting of solid wastes. These laborers are required to perform the following:

- ◆ Attend site-specific orientation and safety meetings when participating in field work;
- ◆ Read, understand, and sign the training verification form that states “I have read, understood, and agree to abide by these safety and health policies and procedures,” before working on site;
- ◆ Evaluate tasks to be performed and site-specific hazards; develop appropriate controls and supplement this SAHP, as required;
- ◆ Follow safe work procedures for this work that will address the specific hazards associated with the task to be performed for this work;
- ◆ Ensure that all staff agree to be scanned for body temperature and self-report any ongoing cough or breathing difficulty being encountered;
- ◆ Ensure that all employees are trained in the safe and proper use of all tools they may use;
- ◆ Ensure that all employees receive a safety orientation before beginning to work;
- ◆ Assure that all employees use all necessary personal protective equipment (PPE) and practice social distancing of at least 6 feet from other individuals; and
- ◆ Promptly correct any unsafe conditions and report any known COVID-19 exposure for the protection of all.

2.7.4 COMMUNICATIONS

MSW Consultants strives to promote timely and accurate communication to all employees (MSW Consultants or subcontractor). Dynamic and open communication, from the top down and the bottom up, is vital to MSW Consultants' success.

MSW Consultants maintains an open-door policy and strongly encourages employees to communicate their ideas, concerns and suggestions through their supervisors. Because safety is of utmost importance to MSW Consultants, all employees can report safety hazards anonymously and without fear for reprimand or reprisal.

2.8. ACCIDENT REPORTING

As soon as possible following an incident or emergency, the Field Supervisor, or his designee is to directly notify the MSW Consultants Corporate Safety and Health Manager, the host facility manager, the subcontractor contact (if applicable) and the client. The Field Supervisor should complete the Accident or Injury Report (Appendix B) and provide the following information:

- ◆ Field Supervisor's name;
- ◆ Task name and task number;
- ◆ Exact location of incident;
- ◆ Name and employer of victim(s);
- ◆ Nature and extent of injuries;
- ◆ If victim(s) was transported off site for medical treatment, then name and address of medical facility and name of treating physician; and
- ◆ Telephone number where the Field Supervisor can be contacted during next 24 hours.

2.9. EMERGENCY PLANNING

This section discusses the health and safety and emergency planning required for this project. If health and safety concerns arise during field activities, the following steps will be taken:

- ◆ Bring health and safety concerns to the attention of the host facility manager;
- ◆ If the host facility manager is unable to satisfactorily address concerns, bring the concerns to the attention of the MSW Consultants Corporate Safety and Health Manager;
- ◆ In the event of an incident or emergency, notify responsible personnel listed in this plan; and
- ◆ Discuss "stop work authority" for imminent danger situations.

2.10. POST-JOB SAFETY PERFORMANCE REVIEWS

At the conclusion of each job, the management team will review safety performance with field operations management employees and subcontractors (if applicable). This review will occur within two (2) weeks of the completion of each job.

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3. SANITATION

Waste composition field sorting events typically last for one or more weeks. Because they may be carried out in multiple locations—on the face of a landfill or within the confines of a transfer station or other waste management facility—, it may be necessary to consider providing specialty sanitary requirements at the job site.

3.1. DRINKING WATER

Drinking water for the field work will be brought to the site and stored outside of the work area. It will not be brought within the work area, nor will it be accessed by any worker in a non-emergency situation without the worker first undergoing the proper decontamination procedure, as described elsewhere in this plan.

3.2. TOILETS AND WASHING FACILITIES

If the host facility provides access to toilets, including washing facilities, within reasonable distance from the job site, such toilets will be used. If no such access is possible, portable toilet facilities, including hand washing capability, will be provided by MSW Consultants for field work. Portable toilet facilities will be located outside, but in close proximity to, the work area. Workers must first undergo decontamination before using portable toilet facilities.

MSW Consultants will also maintain anti-bacterial hand sanitizer and towelettes for use outside the work area.

3.3. WASTE DISPOSAL

To the extent wastes are generated by field operations, this waste will be disposed in the same manner as the removal of sorted samples.

3.4. VERMIN CONTROL

MSW Consultants will comply with the vermin control measures in place at the host facility. This typically consists of maintaining daily site clean-up efforts, and requires that un-sorted samples be completely contained for overnight storage.

4. MEDICAL AND FIRST AID REQUIREMENTS

This section discusses the first aid and medical requirements that are applicable for this work. Prior to start of work, arrangements shall be made for medical facilities and personnel to provide prompt attention to the injured and for consultation on occupational safety and health matters. Medical considerations include:

- ◆ An effective means of communication (hard-wired or cellular telephone, two-way radio, etc.) with 911 access or other emergency response source and transportation to effectively care for injured workers shall be provided. Communication devices shall be tested in the area of use to assure functionality.

- ◆ The telephone numbers and locations of physicians, hospitals, or ambulances shall be carried by the Field Supervisor at all times.

4.1. FIRST AID KITS

First aid kits will be stored at locations where field work will be performed or in vehicles used to transport workers to the field. The kits will contain standard first aid supplies, including, but not limited to bandages and treatment for minor abrasions and strains and will comply with the criteria contained in American National Standards Institute (ANSI) Z308.1 in the ratio of one for every 25 persons or less. Distilled water or portable saline solution bottles will be taken to the field for emergency eye wash purposes.

First-aid kits shall be easily accessible to all workers, and each item maintained sterile. The contents of first-aid kits shall be checked by the employer prior to their use and at least weekly when work is in progress to ensure that expended items are replaced.

4.2. FIRST AID STATIONS AND INFIRMARIES

There are no first aid stations or infirmaries provided for this work, other than an eyewash station or a full supply of portable eye-wash bottles provided at by the Field Supervisor. Other than minor first aid procedures, all injuries or exposures will be treated by emergency personnel at off-site facilities.

If a medical emergency occurs, the Field Supervisor assumes charge until an ambulance arrives or until the injured person is admitted to the emergency room. Site personnel will prevent further injury by taking the following actions:

- ◆ If properly trained (including blood borne pathogen training) and properly equipped with appropriate PPE, initiate first aid and CPR, if needed.
- ◆ Call ambulance and hospital, as appropriate.
- ◆ Determine whether decontamination will make injury worse. If yes, seek medical treatment immediately.
- ◆ Make certain the injured person is accompanied to the emergency room by at least one field team member with the same employer.

5. PERSONAL PROTECTIVE EQUIPMENT (PPE)

The purpose of personal protective clothing and equipment is to shield or isolate individuals from the hazards that may be encountered when engineering and other controls are not feasible or cannot provide adequate protection. Adherence to all prescribed controls is vital to minimize exposures. If a hazard is encountered, MSW Consultants will immediately conduct a Hazard Assessment (Appendix C), take corrective action and record the incident.

PPE ensembles for site activities are defined by the EPA and OSHA. Either MSW Consultants or the subcontractor will supply appropriate PPE for their staff at no cost to individual employees or subcontractor staff, as agreed prior to the field operations. PPE must conform to the requirements of this SAHP; therefore, employee-owned equipment is not allowed. Those not supplied with the proper PPE will not be allowed to work at the site. PPE will be inspected, tested, and used as required.

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Employees shall be physically able and medically determined qualified to use the personal protective and safety equipment that may be required in their job duties. Employers shall ensure users of personal protective and safety equipment are trained to know the following: when PPE, and what types of PPE are necessary; how to properly don, doff, adjust, and wear PPE; limitations of the PPE; and proper care, inspection, testing, maintenance, useful life, storage, and disposal of the PPE.

Each affected employee shall demonstrate an understanding of this training and the ability to use PPE properly before being allowed to perform work requiring the use of PPE. When the employer has reason to believe that any affected employee who has been trained does not have the understanding and skill required for the task, the employer shall assure the employee receives the necessary retraining to acquire the appropriate skills. Re-training will also be conducted when the site environment changes, or if the PPE is changed/upgraded.

Upon completion of the PPE training program, all participants will be required to sign the Plan Approval and Sign-off Form (Appendix A).

Personal protective and safety equipment shall be inspected and maintained in serviceable and sanitary condition as recommended by the manufacturer. Defective or damaged equipment shall not be used and shall be removed from the work site to prevent accidental use. Most PPE required for waste composition projects is single-use only, with the intent of being discarded at the end of the day. For re-usable PPE, before being stored or reissued to another person, equipment shall be cleaned, disinfected, inspected, and repaired.

In general, MSW Consultants will comply with the PPE requirements of the host solid waste management facility. Such requirements supersede those described in this SAHP. However, MSW Consultants will require the following minimum PPE regardless of the host facility requirements.

5.1. GLOVES

Gloves are required to be worn by every employee involved in the physical handling of waste, regardless of the requirements of the host facility. Municipal solid waste may contain materials that are sharp or chemically dangerous if contacted by skin. Appropriate gloves are critical to worker safety.

MSW Consultants has evaluated safety gloves available from the safety products industry. Based on extensive field and office testing, we have standardized on Reinforced nitrile gloves that are compliant with 21 CFR 177.2600. Our preferred glove is shown in Figure 5-1. While no glove will effectively prevent every puncture, this glove provides extremely high puncture resistance, as well as chemical protection for chemical processing, alkaline units at petroleum refineries, metal plating operations, haz-mat handling, haz-mat suits and for hazardous waste disposal. Although arguably overkill for handling municipal solid waste, we believe such precautions are appropriate.

Figure 5-1 MSW Consultants Preferred Glove



5.2. EYE PROTECTION

Eye protection will be worn by employees engaged in physical sorting of municipal solid waste. Eye protection equipment shall be distinctly marked to facilitate identification of the manufacturer. Every worker should know the location of the nearest eye wash station or the location of eye wash bottles prior to beginning work.

MSW Consultants has evaluated eye protection products available from the safety products industry. Based on extensive field and office testing, we have standardized our eye protection on the product shown in Figure 5-2. This product is compliant with ANSI Z87.1-1989, and features an optimal combination of protection, functionality, and comfort. The wraparound style has a hinge less frame system, a single lens design providing a continuous field of vision, and a dynamic shape that allows you to wear eyewear around your neck, on top of your head or over a hardhat. The gel temple sleeves and soft, secure gel nosepiece provide additional wearing comfort. A clip-on, breakaway retainer cord is included with every pair. The lens is constructed of impact-resistant polycarbonate lens filters out 99.9% of UV radiation, and includes a scratch-resistant coating.

Figure 5-2 MSW Consultants Preferred Eye Protection



5.3. RESPIRATORY PROTECTION

Full and half mask respirators requiring fit-testing and specialized training are not required for the performance of waste composition studies. This is because only dust and odors, and not harmful vapors and oxygen-deficient atmospheres, are encountered on these projects. Face masks or cloth face coverings will be provided to all staffing and should be worn when on the project site within 6 feet of another individual. N95 disposable masks will be offered to all employees and subcontractors, as available. MSW Consultants has evaluated disposable respiratory protection products available from the safety products industry. Based on field and office testing, we have standardized our respiratory protection on the product shown in Figure 5-3. This product is National Institute for Occupational Safety and Health (NIOSH) approved. It conforms to facial contours, and comes in individual packages for ease of distribution and sanitary storage.

Figure 5-3 MSW Consultants Preferred Respiratory Protection



5.4. PLASTIC FACE SHIELDS

Plastic face shields similar to what it seen in Figure 5-4 will be offered to be used in lieu of safety glasses.

Figure 5-4 Plastic Face Shield



5.5. FOOTWEAR

Heavy-duty work boots with leather uppers are the minimum foot protection required to perform waste composition analysis. Although steel toes are not required, they are preferred. Employees (or subcontractors) not wearing the minimum foot protection shall not be allowed to enter the work site.

5.6. PROTECTIVE SUITS

Although not required, MSW Consultants will provide and encourage that all workers wear aprons or coveralls for the duration of physical sorting of wastes. For warm weather sorts, aprons are generally preferable because they allow greater airflow and help keep workers from overheating. For cold weather sorts, coveralls are preferred because they add a layer of warmth as well as barrier protection. Figure 5-5 shows a standard Tyvek coverall that may be worn in colder weather sorting events. These coveralls are available in a wide range of sizes, and meet sizing requirements of ANSI/ISEA 101-1996.

Figure 5-5 Tyvek Coveralls



5.7. OTHER PPE

Although not required by MSW Consultants when performing waste composition analysis, many host solid waste management facilities may require the following PPE:

- ◆ Reflective vests;
- ◆ Hard hats; and
- ◆ Hearing protection.

MSW Consultants will conduct a Hazard Assessment (Appendix C) to further confirm all required PPE items and they will be provided by MSW Consultants (at no cost to the employee).

6. HAZARDOUS SUBSTANCES AND ENVIRONMENTS

The activities covered by this SAHP take place entirely at host facilities permitted to receive municipal solid wastes (MSW). MSW by definition does not contain hazardous or toxic substances in sufficient concentration to require extraordinary safety precautions. However, MSW does potentially contain trace quantities of chemical, biological, and physical hazards that may be encountered during the conduct of work. This SAHP is written to provide guidance on ways to eliminate or minimize exposure to these trace hazards, and the steps to take if an exposure occurs.

To ensure that the designated work areas are safe and hazard-free, MSW Consultants will work closely with the host facility. MSW Consultants will also perform an initial site inspection to establish a safe work area and may perform periodic inspections to evaluate workplace hazards (Appendix C). Each inspection will be signed by the designated inspector and kept for a minimum of three years.

6.1. HAZARDOUS SUBSTANCES

Municipal solid waste by definition may not contain hazardous waste, with the exception of Household Hazardous Wastes (HHW) from residential generators, or commercial generators that dispose of HHW-like products at the minimum levels. Nonetheless, employees performing waste composition analysis must have an awareness of the possibility of these materials, which may include:

- ◆ Medical wastes from residential generators (e.g., sharps), including wastes that may contain bloodborne pathogens;
- ◆ Household poisons;
- ◆ Flammable chemicals;
- ◆ Lead-based paints; and
- ◆ Reactive agents.

Radioactive, biologically active, explosive and other highly hazardous materials are prohibited from being disposed as municipal solid waste, and to the extent these items are found during a waste composition study all sorting activities will be immediately postponed and the host facility management notified for removal of these wastes and site remediation.

This SAHP covers a wide variety of hazards known or suspected to exist or that are inherent to the process of waste management activities; however, unforeseen hazards may be present in the performance of these tasks. Hazards not covered by this SAHP specifically will be assessed by the Field Supervisor for the appropriate control measures to maximize worker, environment, and public safety.

6.2. HARMFUL PLANTS, ANIMALS, AND INSECTS

Depending on the location of the waste composition analysis, it is possible that the potential exist to exposure to harmful plants, animals or insects. Poison ivy may be encountered on the periphery of some work areas, and could conceivably occur in the sample itself. It is identified as having dark green, somewhat shiny foliage with sets of three, pointed leaves. Protective clothing will be worn during the performance of field work. Outer garments can either be disposed or washed at the end of each day. Protective gloves will be worn. If encountered, do not touch or burn this plant. If exposure occurs, thoroughly wash the exposed area with soap and water within 10 minutes to remove the irritating oil.

Although a remote risk, outdoor work areas may be in areas where deer ticks live. Deer ticks can carry Lyme Disease. Evidence of exposure is the presence of a tic on the body or clothes. A small, red circular area will appear shortly after a bite. If exposed, contact a physician and save the offending ticks, if possible, for analysis. Avoid dense woods and wear a hat and light-colored, protective clothing. Check body at the end of each field day for the presence of ticks.

Mosquitoes are known carriers of the West Nile Virus and other diseases. For outdoor work areas, protective clothing, including long pants and shirts, will be worn to reduce the area of exposure.

There is a possibility for other harmful vermin to be present at the site, such as snakes. Level D Modified PPE requires that boots should be worn, as well as long pants, which will discourage exposure to snakes. Due caution should be exercised when performing field work.

6.3. INCLEMENT WEATHER AND ENVIRONMENTAL HAZARDS

Hazards presented by the natural work environment may include heat or cold stress, and inclement weather. When there are warnings or indications of impending severe weather (heavy rains, damaging winds, tornados, hurricanes, floods, lightning, etc.), weather conditions shall be monitored and appropriate precautions taken to protect personnel and property from the effects of the severe

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weather. Table 6-1 outlines exposure control methods for working in extreme temperatures and summarizes symptoms and treatment procedures for heat and cold stress.

Table 6-1 Symptoms and Treatment of Heat and Cold Stress

Conditions	Symptoms	Treatment
Heat stroke	Red, hot, dry skin; no perspiration; dizziness; confusion; rapid breathing and pulse; and high body temperature.	This is a MEDICAL EMERGENCY! Cool victim rapidly by soaking in cool (not cold) water. Loosen restrictive clothing. Get medical attention immediately!
Heat exhaustion	Pale, clammy, moist skin; shallow breathing; profuse sweating; weakness; normal temperature; headache; dizziness; and vomiting.	Move victim to a cool, air-conditioned area. Loosen clothing, place head in low position. Have victim drink cool (not cold) water.
Frostbite	Blanched, white, waxy skin, but resilient tissue; tissue cold and pale.	Move victim to a warm area. Warm area quickly in warm (not hot) water. Do not break any blisters. Elevate the injured area and get medical attention.
Hypothermia	Shivering, apathy, sleepiness; rapid drop in body temperature; glassy stare; slow pulse; and slow respiration.	Move victim to a warm area. Have victim drink warm fluids - not coffee or alcohol. Get medical attention.

In the event of adverse weather conditions, the Field Supervisor will evaluate whether work can continue without compromising the health and safety of site personnel. The Field Supervisor will direct the implementation of precautions necessary to ensure the health and safety of site personnel. A lightning watch will go into effect 30 minutes prior to thunderstorms being within a five nautical mile radius of an activity. During the watch, operations or activities may continue, however all personnel must be prepared to implement warning procedures without delay. Workers must be alert for any lightning activity, to include audible thunder, and advise supervisory personnel of any observations.

6.4. DECONTAMINATION

Decontamination protects workers, the public, and the environment by limiting exposure to harmful substances and by preventing the spread of contamination. The Field Supervisor will oversee personnel and equipment decontamination to determine its effectiveness, and take corrective actions to rectify any deficiencies. Table 6-2 presents the decontamination procedures that will be followed for personnel and equipment. Subcontractors are responsible for decontaminating their own equipment and personnel according to these procedures.

MSW Consultants will also maintain hand sanitizers that have been prepared as suggested by the US Centers for Disease Control and Prevention (CDC) for cleaning and disinfecting in the presence of confirmed or suspected exposure to the coronavirus. For more information, please see the Coronavirus Disease 2019 CDC website at: <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>.

Table 6-2 Key Decontamination Procedures

Item	Decontamination Procedure
Equipment Mobilization, Demobilization and Carpooling	Workers that mobilize equipment and travel to and from a work site together should wear masks; wash hands prior to and after the ride; create as much physical distance between each other as possible and avoid physical contact; keep disinfectant wipes or a damp soapy cloth, tissues and hand sanitizer in the vehicle; cover mouth and nose with a tissue or sleeve in the event of coughing or sneezing; avoid touching eyes, nose or mouth; and wipe down the interior of the vehicle prior to and after the ride. Additionally, the car interior should be adequately ventilated using air vents or, weather permitting, open windows.
Sampling Table, Bins, and Tools	Pressure wash at the conclusion of the waste composition study in an area with leachate collection.
Personnel – Mid day breaks	PPE shall be removed while the worker is in the work area. Employees shall wash hands and forearms in the washing facility supplied for the project. Hand sanitizer and/or wipes will be provided.
Personnel – End of Day	Hard hats, vests and eye protection shall be wiped down with disinfectant wipes or damp soapy cloth and returned to the Field Supervisor for inspection and cleaning. Neoprene gloves shall be removed, inspected for tears and chemical damage, and if still in safe working condition, stored in the work area. Damaged gloves shall be replaced for subsequent work days. Tyvek suits, face masks/respirators, and ear plugs shall be discarded as solid waste. Employees shall wash hands and forearms in the washing facility supplied for the project or use provided disinfectant wipes, spray and paper towels.

6.4.1 ADDITIONAL PROCEDURES FOR CLEANING AND DISINFECTING JOB-SITE SURFACES

- ◆ Wear disposable gloves when cleaning and disinfecting surfaces. Gloves should be discarded after each cleaning. If reusable gloves are used, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other purposes. Consult the manufacturer's instructions for cleaning and disinfection products used. Clean hands immediately after gloves are removed.
- ◆ If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
- ◆ For disinfection, diluted household bleach solutions, alcohol solutions with at least 70% alcohol, and most common EPA-registered household disinfectants should be effective.

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- ◆ Diluted household bleach solutions can be used if appropriate for the surface. Follow manufacturer's instructions for application and proper ventilation. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted. (1-1/3 cups bleach per gallon of water)

6.4.2 GUIDANCE FOR DAILY HOME LAUNDERING OF WORK SITE CLOTHING

- ◆ If no gloves are used when handling dirty laundry, be sure to wash hands afterwards.
- ◆ If possible, do not shake dirty laundry. This will minimize the possibility of dispersing germs and contaminants through the air.
- ◆ Launder items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely.

6.5. PERSONNEL DECONTAMINATION

All personnel exiting the sampling area will follow decontamination procedures. Under no circumstances (except emergency evacuation) will personnel be allowed to leave the work area before decontamination. The Field Supervisor may approve simplification of the procedures in the field when a determination has been made that decontamination procedures are unnecessary.

Hand hygiene and other preventive measures shall be practiced as follows:

- ◆ You should clean your hands often, including immediately after removing gloves, by washing hands with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.
- ◆ All workers should follow normal preventive actions while at work and home including recommended hand hygiene and avoiding touching eyes, nose, or mouth with unwashed hands.
- ◆ Additional key times to clean hands include:
 - After blowing one's nose, coughing, or sneezing;
 - After using the restroom;
 - Before eating or preparing food;
 - After contact with animals or pets; and
 - Before and after providing routine care for another person who needs assistance (e.g. a child.)

7. MATERIAL HANDLING

Per OSHA, workers and employers should manage municipal (e.g., household, business) solid waste and recyclables with potential or known COVID-19 contamination like any other non-contaminated municipal waste and recyclables.

Use typical engineering and administrative controls, safe work practices, and PPE, such as puncture-resistant gloves and face and eye protection, to prevent worker exposure to the waste streams (or types of wastes), including any contaminants in the materials they manage. Such measures can help protect

workers from sharps and other items that can cause injuries or exposures to infectious materials. PPE and proper decontamination have been described above.

Although waste composition projects do not require extensive handling of heavy material, there is significant lifting and carrying that must be performed to complete the data collection. This section describes considerations in handling materials during the waste composition study.

7.1. LIFTING AND CARRYING

Employees shall be trained in and shall use safe lifting techniques. When lifting:

- ◆ Reaching out to lift an object fights against gravity, and increases strain on the lower back. Stand close to the load to be lifted and spread your feet for balance.
- ◆ Be certain the weight being lifted is within your capabilities. Ask for assistance if needed.
- ◆ Bend your knees and keep your spine straight. Grasp the object to be lifted and keep it close to your body.
- ◆ Using your leg muscles, straighten your knees and stand.

When carrying:

- ◆ Always keep the object you are carrying close to your body.
- ◆ When changing directions, shift your feet. Don't twist the upper body.
- ◆ Try to avoid changing your grip while carrying the load.
- ◆ After reaching your destination, keep the object close to your body, keep the spine straight, and slowly bend the knees as you lower the object to the floor.

7.2. TEMPORARY MATERIAL AND EQUIPMENT STORAGE

To the extent it is necessary to store sampled wastes until future sorting day and time, the entire sample shall be contained by either temporary or permanent means. Permanent storage is preferred in containers with lids. In some instances, tarping of sampled material is acceptable, provided the tarp can fully contain the sampled waste and be weighted down to prevent removal by vermin or from winds.

Work site equipment shall be stacked, consolidated, and placed at ground level so that it is stable and secured against sliding or collapse.

7.3. HOUSEKEEPING

Scrap, trash, and other wastes shall be placed in designated containers. Work areas shall be cleaned up as the job progresses. Cords and hoses shall be routed in a manner that will present no tripping hazard - preferably overhead. At a minimum, all tools, and equipment shall be stored in a stable position (tied, stacked, or chocked) to prevent rolling or falling. Tools and equipment will preferably be removed from the work site for secure storage in a vehicle overnight. A safe access way shall be maintained to all work areas and emergency exits.

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7.4. MATERIAL DISPOSAL

Waste generated onsite from field activities includes the sorted waste samples, PPE discards, and field trash. These wastes will be managed as non-hazardous, solid waste, and will be placed in the same receptacle being used to remove sorted waste samples.

Any HHW that is found in the samples wastes shall be stored and disposed according to host facility HHW collection policies. If no such policies exist, the HHW will be disposed with the remaining solid wastes.

At the request of the host facility, recyclable materials may be set aside for recovery by the host facility.

8. SITE CONTROL

Effective site control procedures will reduce the potential safety and health risks to the workers on site. Site control includes the following safe work practices:

- ◆ Limiting work area access to essential personnel, both during work hours and off hours;
- ◆ Establishing work zones within the sampling and sorting areas, and restricting personnel entering work zones;
- ◆ Establishing decontamination procedures for personnel and equipment as described above; and
- ◆ Assuring that personnel may be accurately and quickly located and evacuated during an emergency.

At no time will new substances, procedures or processes be introduced into the work site without prior evaluation and approval by MSW Consultants management.

As a general site control, alcoholic beverages, food, cigarettes, and other consumable products are prohibited in work areas at all times.

8.1. SAMPLING AREA CONTROLS

An area at the host facility will be set aside for the oversight of vehicle load tipping and sampling of the tipped load. The sampling work area shall be controlled by:

- ◆ Delineating boundaries for the tipping of targeted loads of waste;
- ◆ Prohibiting entry into these boundaries by non-targeted truckloads;
- ◆ Providing for the safe queuing of material transport hoppers out of the way of collection vehicles and waste handling mobile equipment such as loaders or compactors; and
- ◆ Providing a storage location for a loader or skid steer that may be needed to transport samples.

Only the Field Supervisor or a trained sampling manager may enter into the sampling work area during the course of the project.

8.2. SORTING AREA CONTROLS

An area at the host facility will be set aside for the performance of sorting and weighing sampled wastes. The sorting work area shall be controlled by:

- ◆ Setting aside a 20 foot by 20-foot space where the sort table and bins can be positioned;

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- ◆ Providing additional space for queuing samples;
- ◆ Maintaining a consistent site configuration so that employees know the proper position of all equipment and materials; and
- ◆ Being established out of the way of any heavy machinery or equipment that may be in operation within the facility boundaries.

No personnel will enter or work in delineated work zones without proper training or an escort.

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SAFETY AND HEALTH PLAN

APPENDIX A

PLAN APPROVAL AND SIGN OFF

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APPENDIX A – PLAN APPROVAL AND SIGN-OFF

This Safety and Health Plan has been written for the exclusive use of MSW Consultants, its employees, and subcontractors. Although intended to be a generic plan that applies broadly to waste composition projects, it may require amendment for certain specific projects or facilities. Subcontractors are required to supplement this plan, as needed, to address specific tasks (and associated hazards) they may be performing.

The following signatures verify that the undersigned has either reviewed the written Plan or else has received training on relevant components of the Plan.

Project: _____

Location: _____

Concurrence by: _____

Date: _____

MSW Consultants Field Supervisor

Crew Signoff:

“I have read, understood, and agree to abide by relevant sections of this SAHP.”

Signature: _____

Date: _____

Organization: _____

Signature: _____

Date: _____

Organization: _____

Signature: _____

Date: _____

Organization: _____

Signature: _____

Date: _____

Organization: _____

APPENDIX A - PLAN APPROVAL AND SIGN OFF

Project: _____ Location: _____

Signature: _____ Date: _____

Organization: _____

Signature: _____ Date: _____

Organization: _____

Signature: _____ Date: _____

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Signature: _____ Date: _____

Organization: _____

Signature: _____ Date: _____

Organization: _____

Signature: _____ Date: _____

Organization: _____

Signature: _____ Date: _____

Organization: _____

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APPENDIX B

ACCIDENT OR INJURY REPORT

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Information in this report is to be used for the prevention of accidents and is not intended as a basis for injury claims. In counting time lost, start with the first full day or shift lost after date of injury and do not include weekends and holidays.

Type of Accident:						
Location:						
Weather Conditions:	Sunny	Clear	Overcast	Rain	Snow	Other:
Temperature:	Below 32°F	32°-60°	60°-70°	70°-85°	Over 85°F	
Wind:	Still	Moderate	High	Stormy		

Name:		
Age:	Title:	Occupation:
Employer if Different from MSW Consultants:		
How Long Employed:	Remarks:	

Date and Time of injury:
Exact place where injury occurred:
If lost time/restricted duty resulted, date employee started losing time/restricted duty:
Did injury result in death or probable permanent disability?
Return to work date/full duty: (Estimated)
Date of death:
Calendar days lost time (Estimated):
Describe accident/ injury:

Date and Time injured personnel's employer was contacted:
Name of employer contact person:

Date: _____

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APPENDIX C

HAZARD ASSESSMENT AND CORRECTION RECORD

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HAZARD ASSESSMENT and CORRECTION RECORD



Date/Time of Inspection: _____

GENERAL INFORMATION:

Person Conducting the Inspection:
Project Name:
Location:

MSW Consultants will perform an initial work site inspection to establish a safe work area. MSW Consultants will work closely with the Host Facility to ensure that the designated work area is hazard-free and the documented safety procedures are followed. MSW Consultants and the Host Facility may perform periodic inspections to identify and evaluate workplace hazards.

Check One: ☐ Initial Inspection ☐ Periodic Inspection

WORK SITE INSPECTION:

UNSAFE CONDITION or WORK PRACTICE:

CORRECTIVE ACTION TAKEN:

Inspector's Signature: _____

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