

# Minimum Global Safety, Health & Environment Requirements

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Global

# Minimum Global Safety, Health and Environmental Requirements

S2-001-ATT3

Global SH&E requirements have been developed, and shall be implemented as the minimum requirements to be met by AECOM operations. Global SH&E documents are identified with document numbers beginning with S2. Supplementary SH&E procedures to the Global SH&E Requirements shall be developed and implemented when additional detail is necessary based on differences in services offered by business groups, and in laws and statutes across geographies and regions. These supplementary SH&E procedures are identified with document numbers beginning with S3 for documents applying to the super-geographies, (Americas, Asia-Pacific [APAC], Europe, Middle East & Africa [EMEA]), and with S4 for business group, country, or region specific documents.

The Global SH&E Requirements are as follows:

## 000 SH&E Essentials

### 0.1 Stop Work

- All employees have the authority and responsibility to stop work if SH&E is being compromised without fear of reprisal or retribution. Nothing is ever so urgent or important that we cannot take the time to do it safely.
- Work associated with the affected area or operation will not resume unless the corrective actions identified have been resolved to an acceptable level and management approval obtained to restart.
- AECOM's Safety Red Card is a tangible reminder of stop work authority for AECOM employees and subcontractors. The cards are designed to be paired with Company and / or customer ID badges; every employee shall have or have access to their own Red Card. An equivalent tool shall be established where the red card cannot be used (e.g., cultural significance of red, conflicts with client badging, etc.).

### 0.2 Induction / Orientation and Training

- Each employee shall be trained and competent to perform tasks that may impact on SH&E in the workplace and as required by legislation, company procedures and client expectations.
  - Assessment of competence and training will take account of responsibility, ability, literacy and exposure to risk.
  - Comprehension of training shall be appropriately verified (e.g., demonstration of skills, quiz, etc.).
- Potential employees are required to bring evidence of their qualifications to job interviews. Project Managers or supervisors, in coordination with Human Resources (HR), use employee training records and resumes to confirm potential employees have the required skills, knowledge, training and experience for the proposed tasks. Where appropriate, resumes are included in job tenders for client perusal.
- Within one week of starting at AECOM, project managers or supervisors are responsible for ensuring each new employee receives induction / orientation training to set the expectations of the AECOM Safety for Life program including incident reporting, stop work authority, accessing SH&E resources and tools, and a clear expectation of zero injuries.
- Employees shall also complete any applicable site specific field or office orientations.
- Each employee shall complete *Speak Up Listen Up* (SULU) training according to the schedule for the associated Business Group established by the applicable VP SH&E or designee.

- Supervisors shall ensure visitors complete an orientation appropriate to the location or site they are to visit, supplemented by appropriate visual material (e.g., handout, ipad, etc.) and subsequently abide by AECOM SH&E policies and procedures when visiting our premises or sites.
- Visitors to AECOM premises or sites shall be escorted by an AECOM employee who shall confirm local security arrangements are applied, appropriate PPE is provided, and the visitor is aware of SH&E management requirements, including those for emergency response and incident reporting.
- Each supervisor shall complete AECOM's *Supervisor Training in Accountability and Recognition Techniques* (START).
- Each Project Manager and Supervisor directly overseeing revenue generating projects with any aspect of work conducted outside of an AECOM office, shall complete certification as a *Safety Trained Supervisor* (STS) or *Safety Qualified Supervisor* (SQS) according to the schedule for the associated Business Group established by the applicable VP SH&E or designee.
- The responsibility for ensuring that employees receive adequate SH&E training rests with the operation leaders based on the requirements of these minimum requirements and the Business Group SH&E procedures.
  - Supervisors are responsible for ensuring that each employee within their direct control is competent to undertake their job as specified.
  - AECOM Business Group and geography leadership shall develop a training matrix for employees of their group or geography. Managers are required to arrange the appropriate training as identified in the training matrix and on a timely basis (e.g., upon hire, or upon commencement of a new task).
  - On-going employee competence and training needs are identified as part of our annual appraisal process. In addition, as part of the appraisal process, employees are encouraged to set personal goals within a Personal Safety Action Plan (PSAP). A PSAP is a brief list of personal behaviors or SH&E actions that an employee has committed to implement during the forthcoming year.
  - SH&E training needs may also be identified through individual risk assessments, incident investigations, observed non-compliance, or when procedures change. As required, appropriate training will be arranged, and may be provided through AECOM University courses, safety meetings, and / or classes delivered by internal or external providers. Employees identifying a particular training requirement are expected to discuss this with their managers if the requirement cannot wait until their next appraisal.
  - Employees are encouraged to take part in continuing professional development activities to enable retention, competency, and remaining abreast of emerging techniques and processes.
- Supervisors shall ensure staff training is adequately documented and records are maintained.

### **0.3 Newly Hired or Transferred Employee**

Employees who have been newly hired or transferred to a different position in the company shall be:

- Trained to AECOM procedures and client requirements prior to performing work.
- Supervised by a competent person.
- Visually identifiable and their presence in field locations recorded.

### **0.4 Fit for Duty**

- Employees shall come to work in a fit state that does not place themselves or others at risk due to physical, mental, and emotional factors.
- Employees that come to work in an unfit state shall inform their supervisor so that adjustments to their activities can be made accordingly. This may include but is not limited to:
  - Temporary conditions (e.g., fatigue, stress)

- Physical limitations (e.g., eyesight, hearing, flexibility, lifting restrictions)
- Cognitive limitations (e.g., brain damage)
- Psycho-social factors (e.g., depression, anxiety, fears restricting clear thinking)
- Employees who observe another employee that may be working in an impeded manner or unfit state are expected to inform a supervisor immediately.
- Employees who have experienced an off-the-job injury should consult their supervisor, Human Resources (HR) and AECOM's Occupational Health Team for assistance in assessing their scope of work to determine any potential for risk of further complications. Adjustments to activities may be appropriate to facilitate a return to full health.
- Where an incident has occurred and there is reason to believe the individual may not have been fit for duty the local SH&E team and HR shall be contacted immediately.

## **0.5 Fatigue Management**

- The responsible manager or supervisor shall assess the activity and task specific risks, duration and exertion level as appropriate, and mitigate them to an appropriate level to enable the employee to effectively manage fatigue hazards.
- Employees shall work within prescribed guidelines, including a maximum of 14 hours a day, 60 hours a week, unless additional risk management strategies are implemented, such as increased supervision or additional rest breaks, to combat the effects of fatigue.
- The SH&E Plan shall address fatigue issues as part of the risk assessment.

## **0.6 Drugs & Alcohol (Including Prescription Medication)**

- AECOM prohibits the use, possession, presence in the body, distribution, manufacture, concealment, transportation, promotion or sale of the following items or substances on company premises:
  - Illegal drugs (or their metabolites), designer and synthetic drugs, mood or mind altering substances and drug use related paraphernalia unless authorized for administering currently prescribed medication;
  - Controlled substances that are not used in accordance with physician instructions or non-prescribed controlled substances;
  - Alcoholic beverages while at work or while on any customer or AECOM controlled property. This prohibition on alcohol applies whenever an employee is on-duty, including during meal or break periods, while on Company premises, or while representing AECOM. AECOM may make exceptions and permit the consumption of alcohol beverages at work-related events, such as Company-sponsored or approved business meals, conferences, or holiday events. Employees who choose to consume alcohol on approved occasions are expected to exercise good judgment and to refrain from becoming intoxicated or impaired. If an employee has consumed alcohol and needs transportation home, the Company will reimburse the cost of a taxicab or other reasonable costs of transportation so that the employee may avoid driving.
- AECOM does not prohibit lawful use and possession of current medication prescribed in the employees name or over-the-counter medications. Employees are expected to consult with their health care provider about any prescribed medication's effect on their ability to perform work safely and/or any associated work restrictions.
- An employee who has work restrictions due to his or her consumption of a prescribed medication shall disclose these restrictions to their supervisor.

## **0.7 Emergency Planning**

Each AECOM office and worksite SH&E Plan shall include a site-specific Emergency Response Plan (ERP) specific to the location and local requirements. The author of the ERP shall check with applicable stakeholders (e.g., client, site

owner, building manager, landlord, etc.) regarding the various parties' current emergency procedures and will incorporate these, as appropriate, into the AECOM Emergency Response Plan.

Project Managers are responsible for emergency planning with regard to SH&E risks on project work and for recording their arrangements within the project documentation. Plans shall include ensuring the appropriately trained personnel are on site as required, and emergency equipment and supplies are available and in operable condition. Inspection, testing and maintenance of emergency and first aid equipment shall be identified, scheduled and undertaken in accordance with local legislative and manufacturer requirements. Affected personnel shall be briefed on the arrangements, trained in their roles and responsibilities and be knowledgeable about alarm and communication requirements. Testing and evaluation of the plan is achieved through review of actual incidents and mock drills.

SH&E Plans shall comply with client requirements and specifications, shall be appropriately posted, and will typically contain the following:

- Reporting Procedures for Fires, Environmental Incidents and Other Emergencies.
- Alarm System and Security Measures.
- Evacuation Routes, Assembly Points, Shelter In Place Procedures.
- Extreme / Severe Weather Planning.
- Natural Disaster Planning (e.g., earthquake, flood, etc.).
- Critical Equipment / Operations Procedures.
- Assisting Disabled or Medically Restricted Personnel.
- Personnel Accounting Procedures.
- Rescue and Medical Duties.

Emergency response personnel (e.g., evacuation coordinators, first aid responders, fire wardens, etc.) shall be identified in accordance with potential emergencies, legislation, and requirements of the site-specific SH&E Plan.

The number of first aid persons / appointed persons and standard of qualifications will differ due to the varying risk level associated with different environments and activities. First aid or appointed persons shall be identified to meet first aid requirements in accordance with legislation and the requirements of the site-specific SH&E Plan.

## **0.8 Incident Reporting, Notifications, Investigation and Injury Management**

- All work-related injuries, illnesses and incidents, including those of employees and subcontractors under direct AECOM control, shall be reported to an AECOM supervisor immediately. Any associated regulatory notification requirements of the applicable jurisdiction shall be met.
- Injuries, illness and incidents shall be entered into IndustrySafe using the initial incident form within one business day of the event.
- For company-wide SH&E statistics, OSHA recordkeeping requirements shall be used in all Geographies / Business Groups. To comply with local regulations, additional SH&E reporting and statistics may be required to be maintained.
- Where required, injury logs shall be signed by senior management of Operations.
- A formal investigation process (e.g., Why Tree, 5-Why) shall be utilized to determine root causes and contributing factors for all recordable and high potential incidents ([HiPos] assessed at a risk rating of 10 or above using the AECOM Risk Matrix). Refer to section 'Hazard Identification & Risk Management' for an explanation of the AECOM Risk Matrix.
- All records applicable to an incident shall be retained as defined in the AECOM Records Retention Procedure and as necessary to manage any future action associated with the incident.
- Executive Incident Reviews shall be performed for all high potential or high actual consequence (HiPo) incidents.
- The Executive Incident Review shall be presented by the respective Project Manager to the appropriate executive / leadership (Geography, Business Group, Regional, Strategic Business Unit, Legal, Human

Resources, etc.) and VP of SH&E. Refer to *S2-001-FM1 Executive Incident Review Template*. Reviews shall include at a minimum:

- A description of the project scope;
  - Summary of the incident and associated timelines;
  - Immediate actions taken;
  - Contributing causes;
  - Root causes;
  - Recommended corrective actions; and
  - Closing summary and questions.
- Injuries shall be managed in accordance with the appropriate Geography / Business Group procedure.
  - Unless restricted by local regulation, labor agreement or client provided treatment; a Supervisor (or designee) shall escort an injured employee to the initial physician visit. The Supervisor shall confirm that the Company's return to work policy is followed and assist in communication between the injured employee and management.

## **0.9 Ground Transportation / Motor Vehicles**

When traveling for business purposes (excluding commute to and from work), two-wheeled modes of transportation (e.g., bicycles, motorbikes, etc.) are prohibited unless specified and approved for a given industrial site or project in the applicable SH&E Plan.

The below requirements apply to employees who operate motor vehicles that are owned, rented, or leased by AECOM and to employees who use personal, client or government-supplied vehicles while conducting AECOM business.

- Motor vehicles shall be selected, equipped, operated and maintained in a way that protects personnel from harm.
- At-risk driving behavior by AECOM employees shall be identified and managed appropriately (e.g, retraining, driving restrictions, disciplinary action, etc.).
- Motor vehicle operators shall adhere to all local laws including, signs, postings, regulations, ordinances and codes applicable for the jurisdiction in which the motor vehicle is being operated.
- Commercial motor vehicles and operators are required to meet the jurisdiction's applicable commercial motor vehicle regulatory requirements.
- Only licensed and appropriately insured drivers, who are fit for duty, shall operate a motor vehicle.
- Travel shall be assessed to allow for safe management of the journey.
  - Drivers who are to undertake trips in excess of 250 miles (400 km) each way, drive in remote or hazardous areas, or when otherwise deemed necessary, shall develop and document a Journey Management Plan.
  - Plans typically include the route, location of route hazards, timing, rest periods and locations, communications, emergency response and security arrangements.
  - Appropriate planning shall occur including, but not limited to, personal protective equipment, competence in vehicle recovery, positive communications, and ensuring adequate drinking water and supplies are available in the event personnel become stranded.
- The use of electronic devices that may distract the driver while driving is prohibited. This includes cell phones, two-way radios and other items whether hand-held or hands-free.

- GPS units and devices (e.g., smart phones, tablets) used for navigation may only be used if factory installed or secured to the vehicle with a bracket that allows the driver to view the image without having to take their eyes off the road.
- Electronic devices shall be setup for operation prior to commencing driving activities and shall not be changed by the driver while driving.
- Motor vehicle occupants are required to wear seatbelts at all times when the vehicle is in operation.
- When driving in off-road conditions employees shall confirm they have a fit for purpose vehicle and have experience or training for the conditions.

## **0.10 Consultation & Communication**

- AECOM shall provide appropriate resources, time, training, and methods to facilitate SH&E communication and consultation between management and employees. Any identified barriers to effective communication and consultation, such as language barriers, or fear of reprimand, shall be appropriately addressed and removed to allow for employee participation.
- AECOM leadership shall promote awareness of SH&E issues in AECOM offices, facilities, and worksites through such approaches as the use of banners, SH&E notice boards, AECOM's intranet, newsletters, alerts (including those issued by clients), key performance indicators and other SH&E-related material.
- Communication and coordination amongst key stakeholders (e.g., AECOM personnel, subcontractors, clients, teaming partners, regulatory bodies, etc.) shall be conducted as appropriate throughout the lifecycle of a project in order to safeguard our employees, subcontractors, the public and the environment.
- Safety moments should be shared in every meeting. At a minimum, every meeting of five or more attendees (employees and non-employees) via webcast, telephone, video conference, or live shall start with a Safety Moment following the meeting details and emergency information announcements.
  - Meeting organizers are responsible for identifying an attendee to present or facilitate the Safety Moment in advance of the meeting. Whenever possible, the attendee should be someone other than a SH&E professional.
  - Meeting agendas shall identify Safety Moments as a meeting item. Meeting minutes will include the Safety Moment topic.
- As appropriate, employees shall be consulted during SH&E activities. Associated SH&E documentation shall be completed and provided to affected personnel as a method of SH&E communication (e.g., SH&E hazard assessments, plans, permits, inspections, investigations, lessons learned, etc.).
- All staff are encouraged to discuss any SH&E concerns, good practices or ideas with their Supervisor and to enter SH&E observations within LifeGuard or IndustrySafe. Content shall be monitored by the SH&E Team and appropriate response or close-out action taken.
- Regular SH&E meetings shall be conducted between management and staff. Frequency as established in the applicable SH&E Plan shall be met.
- AECOM encourages the establishment of SH&E committees, including Safety Leadership Teams (SLTs), with the aim of allowing a direct interface between management, SH&E staff and other employees.
- Where established, the requirements of these committees or SLTs should be developed; basic agenda, membership composition, frequency of meetings (at least quarterly), with meeting minutes published and posted for employees to access.
- Requests for information from external interested parties shall be reviewed and dealt with on a case-by-case basis and in accordance with legal, AECOM and client requirements. Project related requests shall be managed by the associated Project Manager, with necessary assistance provided by the SH&E Team.

## 0.11 Recognition and Rewards

- Rewards and recognition programs shall be developed and implemented to recognize individuals, teams, projects and offices that meet established criteria in SH&E performance. Project rewards and recognition programs shall be included in the project's SH&E Plan.
- All levels of supervision are encouraged to recognize the SH&E initiatives, milestones and efforts made by those who work with them on an ongoing basis. This recognition may be as simple as publicly thanking an employee for reporting hazards, taking the time to do a job safely, participating in SH&E Committees, or refusing unsafe work. This recognition will also include team, project and office recognition of achievements in SH&E.

## 100 Exposure Management

### 1.1 Toxic and Hazardous Substances

- Where there is a risk of exposure to toxic and hazardous substances, the activity and task shall be assessed for employee exposure to toxic and hazardous substances and, as applicable, appropriate hazard controls developed, implemented, communicated and maintained.
  - While hazardous substances commonly encountered on worksites include asbestos, silica, benzene, cadmium, chromium (VI), hydrogen sulfide, and lead, any other toxic or hazardous substances that may be encountered by AECOM employees (e.g., ammonia, arsenic, coal dust, isocyanates, mercury, etc.) shall also be assessed.
- When the assessment identifies the potential hazard of toxic or hazardous substance exposure, medical screening and surveillance requirements shall be defined if applicable to the substance and jurisdiction.
- Employees shall be informed of the hazards of the chemicals to which they may be exposed in the course of their work (e.g., container labeling, training, etc.). The Global Harmonization System shall be applied in alignment with the applicable jurisdictional requirements.
- Appropriate training and guidance shall be provided to employees to eliminate or control occupational exposures to toxic or hazardous substances (gas, vapor, aerosol [dust], mist, fume, fog, fiber, smoke) to the lowest level practicable.

### 1.2 Industrial Hygiene & Medical Screening

- Industrial hygiene hazards shall be identified, including as applicable, toxic and hazards substances, physical agents (acoustic, thermal, etc.) and biological airborne contaminants. To the extent possible, the associated risks shall be reduced to as low as reasonably practicable, given the available technology and known toxicological or adverse human health effects.
- Only competent and trained personnel shall perform work where employees and subcontractors are exposed to industrial hygiene hazards.
- Current exposure limits identified by the *American Conference of Governmental Industrial Hygienists* (ACGIH) shall be used as the maximum exposure limit. Exposure limits established by local regulatory standards or consensus standards that are more conservative than those identified by ACGIH shall be applied in the applicable jurisdiction.
- Medical screening and surveillance shall be conducted as necessary based on potential exposures and regulatory requirements.
- Only fit for duty personnel shall perform work where industrial hygiene hazards exist.
- Appropriate hazard control measures shall be in place where exposures will be above established occupational exposure levels.
- Project SH&E Plans shall specify exposure limits and action levels.

## 200 Planning & Oversight

### 2.1 Safety in Design

- Safety in design shall be incorporated into the design and constructability aspects of temporary and permanent facilities, structures, and processes from concept to completion, including proposals and marketing, engagement of subcontractors, construction operations and subsequent operation, maintenance and demolition of the product.
- Where the principles of safety in design are not required by law, the practices of safety in design shall be incorporated in the design and building aspects of temporary and permanent facilities, structures and processes to minimize risk to people, and capitalize on intrinsic efficiencies of an enhanced design process.

### 2.2 Hazard Identification and Risk Management

- The Project Manager shall ensure risk assessment processes are conducted to identify hazards and manage the associated risks applicable to the location. Risk assessment processes shall be utilized throughout the lifecycle of the project:
  - SH&E risk assessment during the pre-bid stage of a project is conducted to inform the go / no go decision as well as identify potential SH&E planning, budgetary and staffing requirements. Please refer to *S2-001-ATT4 SH&E High Risk Events Guidance* for a listing of high-risk events, when they might be encountered, and potential consequences of occurrence.
  - Project start-up activities require appropriate SH&E planning prior to work commencing, including identification of hazards, associated risk, and appropriate controls for each task and operation found in the work scope. Completed risk registers / hazard assessments shall be incorporated into the Project's SH&E Plan.
  - Project execution activities shall ensure the Project SH&E Plan is reviewed and hazards are further assessed in light of current conditions. In order to capture nuances or site-specific conditions immediately present that may otherwise remain unacknowledged, task hazard assessments (THAs) are required to be completed and reviewed immediately prior to initiating the task at the work location by those conducting the task.
  - SH&E performance reviews at close-out of a project shall be conducted to identify successes and any potential improvement opportunities. As appropriate, preventive actions shall be developed with the goal of continual improvement to industry-, client-, or location-specific SH&E activities, as well as the AECOM SH&E Management System.
- The manager shall plan required SH&E activities and incorporate SH&E procedures into the location or project SH&E Plan. The SH&E documentation for any project lasting twelve (12) months or longer will be reviewed at periodic intervals, but at least annually.
- Where necessary, the Project Manager shall seek input from the relevant SH&E team and affected workers into the planning process.
- Risk assessment processes shall identify the hazards and mitigations or controls required to eliminate or reduce the associated risk to as low as reasonably practical for each hazard.
- Those involved in a documented risk assessment shall include trained and competent personnel in hazard identification and use of risk management tools and processes.
- Results shall be communicated to affected personnel (e.g., SH&E Plans, Tailgate meetings, daily safety huddles, review of documented assessments, etc.).
- Risk mitigations or controls shall be monitored on an ongoing basis for effectiveness.
- A risk ranking shall be performed for pre- and post-mitigation efforts. The risk ranking shall be completed using the following AECOM Risk Matrix:

Probability	Severity				
	5 - Catastrophic	4 – Critical	3 – Major	2 – Moderate	1 - Minor
5 – Frequent	25	20	15	10	5
4 – Probable	20	16	12	8	4
3 – Occasional	15	12	9	6	3
2 – Remote	10	8	6	4	2
1 - Improbable	5	4	3	2	1

- If the final risk rating is a 5-9 (medium risk) or 10-25 (high risk), additional hazard controls shall be identified and applied until the final risk rating is reduced to 4 or below. If the final risk rating cannot be reduced to 4 or lower, additional approvals, as shown below, are required before the activity can begin.

Risk Rating (Probability x Severity)	Risk Acceptance Authority
1 to 4 (Low)	Risk is tolerable, manage at local level
5 to 9 (Medium)	Risk requires approval by Operations Lead / Supervisor & SH&E Manager
10 to 25 (High)	Risk requires the approval of the Project Manager & SH&E Director

Severity – Potential Consequences				
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>\$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>\$250K to \$1M USD	Onsite impact requiring remediation	Media intervention
Major	Lost/Restricted Work	> \$10K to \$250K USD	Release at/above reportable limit	Owner intervention
Moderate	Medical Treatment	> \$1K to \$10K USD	Release below reportable limit	Community or local attention
Minor	First Aid	<= \$1K USD	Small chemical release contained onsite	Individual complaint

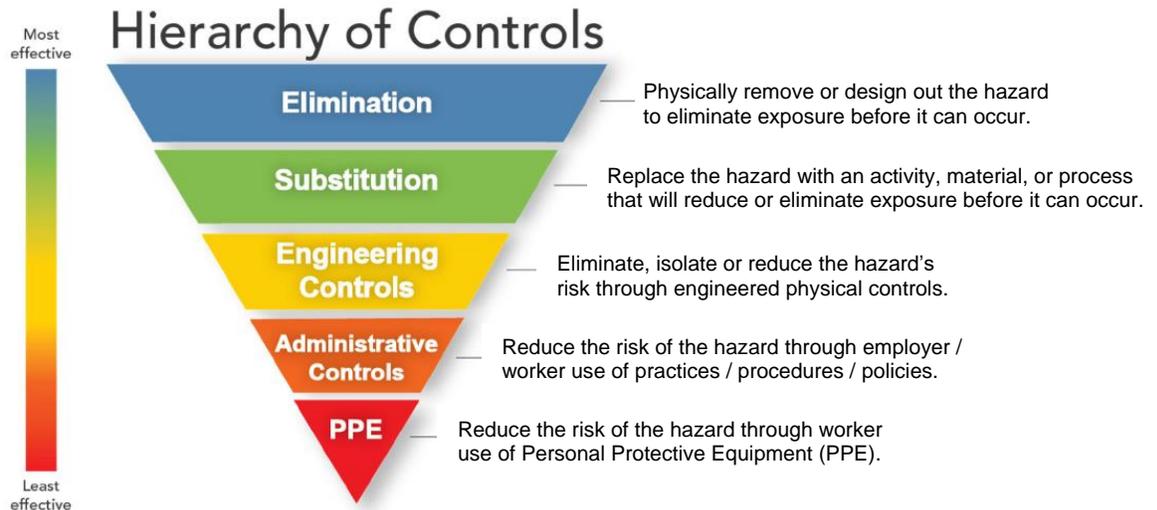
Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000

The Project Manager shall review the risk assessments incorporated in the SH&E Plan on site and modify them if circumstances are different or change during the work. Site personnel shall sign the SH&E Plan initially and after any changes to show they have read and understood it.

Situations may arise that were not foreseen or accounted for when the operating procedures or plans were developed. The purpose of Management of Change is to protect personnel from hazards caused by major changes in the scope of work. Stop work shall be initiated and appropriate changes in the way the operations are conducted shall be identified so the work can recommence and be performed safely. The changes may be temporary or permanent. A record of the Management of Change shall be documented and employee training on the change completed before work restarts.

**Mitigation of Hazards**

- Supervisors shall refer to the SH&E Plan to confirm task-based risks are managed in accordance with the hierarchy of controls.



- Advance planning permits Safety in Design to be applied to systems, equipment and work areas in order to eliminate, substitute, or apply engineering controls to the hazard.
- When determining appropriate controls to mitigate the risk presented by each hazard, the most effective controls (ordered from the most effective at the top of the image above to the least effective at the bottom) shall be assessed and applied as is practicable, with PPE considered the last line of defense.
- Layers of control or redundancy shall be established whenever possible (utilizing multiple means e.g., engineered control further supplemented by safe work practices and PPE).
- When PPE is required, specific basic and/or specialized PPE shall be identified in the SH&E Plan. Supervisors will verify workers and visitors have access to the appropriate PPE and that workers and visitors are properly trained and competent in the use and requirements related to the given PPE. Advice on the use, care, storage and maintenance of PPE is available on the company intranet, or from the SH&E Team.
- Managers shall assess the workplace for potential violence scenarios and incorporate findings into the emergency preparedness and response planning where applicable.

**2.3 Personal Protective Equipment (PPE)**

- The following basic PPE is required to be worn at all times on industrial sites:
  - Hard hat/ bump cap (selected based on applicable hazards), safety glasses with sideshields, work boots, full length trousers, shirt with sleeves, gloves.
  - All personnel shall have gloves in their immediate possession 100% of the time when in a shop or on a work site. Appropriate gloves shall be worn when employees work with or near any materials or equipment that present the potential for hand injury due to sharp edges, corrosives, flammable and irritating materials, extreme temperatures, splinters, etc.
  - PPE shall be worn at all times on industrial sites unless the employee is in an area clearly marked and the differing PPE requirements defined, in which case the area's requirements shall be met.
- All personal protective equipment required for the identified hazards shall meet applicable standards (e.g., approved safety glasses worn in environments presenting eye hazards [meaning prescriptive eyewear shall also meet applicable safety standards when eye hazards are present], appropriate class / type of hard hat in a high voltage electrical environment, etc.).

- All personal protective equipment shall be in good working condition and maintained to manufacturer's specifications. Defective or damaged equipment shall be discarded and replaced.

## 2.4 Permit Required Activities

- All work activities shall be evaluated to determine if work permits or specific plans are required.
- Activities requiring a completed permit or specific plans before work begins (e.g., confined space, lockout / tagout, electrical, hot work, fall protection, radiation, blasting and explosives, temporary protection, critical lifts, excavation, underground work) to safely perform work shall be planned, managed and executed by competent personnel.
- Additional tasks (e.g., core drilling, perimeter work, elevator shaft work, stair installation, etc.) shall be assessed based on risk, regulatory requirements and client requirements to determine whether Permit to Work processes are required.
- The responsibilities, accountabilities, training and competency requirements for the permit issuer, individual permit holders and persons performing permitted tasks shall be clearly defined.
- All personnel undertaking work requiring a permit shall be made aware of the hazards, how the hazards are being controlled, and the permit conditions that are required to be met.

## 2.5 Oversight of AECOM Subcontractors / Subconsultants

- Subcontractors / subconsultants that work for or on behalf of AECOM will be selected/ prequalified in accordance with AECOM's subcontractor management procedure / process.
- Subcontractor / subconsultant SH&E plans and applicable procedures shall be reviewed prior to initiation of work.
- Subcontractors / subconsultants shall comply with the client and AECOM site specific SH&E plan.
- AECOM shall monitor performance and conduct and report on routine inspections of work activities of subcontractors / subconsultants. Feedback shall be provided as appropriate.
- Subcontractors / subconsultants shall immediately report all incidents to AECOM and investigate as appropriate.
- Subcontractors / subconsultants shall immediately report all incidents to AECOM and investigate as appropriate.
- Subcontractors / subconsultants shall follow equivalent due diligence processes for any lower-tiered subcontractors.

## 2.6 Environmental Procedures

AECOM project and office SH&E Plans shall document the identification and assessment of the various environmental aspects and impacts resulting from our business activities. These can be positive or adverse, direct (under AECOM direct control) or indirect (e.g., those created by the activities of our partners and contractors / suppliers).

Full account is taken at each stage of office and project activities including under normal / abnormal operating conditions and contingencies (incidents, emergency situations), past / present / foreseeable activities, partner / supplier activities and so on.

As applicable to the activities and tasks, the environmental impacts and aspects shall each be assessed for significance in order to develop, document, and implement suitable and sufficient controls, emergency arrangements, and procedures for identifying, assessing and managing environmental sustainability for the following considerations:

- Air Quality and Pollution.
- Contaminated Land.
- Ecology, Archaeology and Cultural Heritage.
- Noise.
- Resource Consumption.
- Statutory Nuisance.

- Traffic Management.
- Waste Management.
- Water Quality and Pollution.
- Dust Control Measures.
- Storm Water Management.
- Spill Response.
- Delivery, Storage and Refueling of Fuel, Oil and Chemicals.
- Energy and Water Use, Recycling.

In addition, when planning new processes, the environmental risks and impacts are re-assessed in light of any specific, new, or changed factors posed by the proposed new activity and location in accordance with the procedures for risk management and management of change.

- The results of these assessments are collated into a country-specific Register of Environmental Aspects and Impacts (as applicable) which is reviewed upon major activity change and / or at least annually and updated accordingly.

## **2.7 Inspection by Regulatory Agencies**

Regulatory inspections for the purpose of these requirements include:

- Any non-routine announced or unannounced inspection of an AECOM office or project site by a regulatory agency involved with Occupational Health and Safety and Environmental laws and regulations.
- Periodic visits from service or local agencies to project sites to approve certain activities such as utility hook-up, utility clearance, etc. are not considered regulatory inspections.

The Project Manager shall:

- Ensure a senior AECOM employee meets with the inspector in order to obtain copies of credentials, determine the purpose of the inspection and to request applicable documentation.
- Confirm the inspection is reported in IndustrySafe within one business day.
- Confirm notification of the relevant VP of SH&E and relevant SH&E Manager of the inspection.
- Notify the client of a regulatory inspection that is occurring on their project site so that the client may have representation during the inspection, at their discretion
- Ensure an appropriate AECOM escort accompanies the inspector at all times to address questions, observe activities and monitor evidence gathering (this may include obtaining duplication of evidence, such as dual photos and split samples).
- Confirm copies of the visit record and other documents or postings that the inspector may issue are obtained.
- Request a debrief session.
- Where a citation was issued:
  - Ensure direction is given to the local staff to stop the performance of the cited activity until the appropriate corrective actions are implemented.
  - Confirm any required posting is completed in accordance with the directions outlined in the issued citation.
  - Confirm a formal response is submitted to the citing agency and facilitating payment of any associated monetary fine after approval from Counsel.
  - As applicable, serve, or designate an appropriate individual to serve, as AECOM's informal and formal agency negotiation meeting representative to discuss the citation.

## 2.8 Office Safety

- Each AECOM office will develop an Office SH&E Plan in accordance with the template provided on the company intranet.
- Managers shall confirm that employees understand any specific risks, are briefed in the correct emergency response procedures and have access to emergency equipment.
- All visitors to the office shall sign in and be given an SH&E orientation / induction.
- All offices shall have an SH&E noticeboard in place with current relevant materials posted to include but are not limited to the AECOM SH&E Policy, Life Preserving Principles as well as any other local regulatory or geography specific information.
- Offices shall be inspected to identify and address any specific hazards. Hazards shall be controlled or have actions in place to mitigate the risk.
- Safety committees shall be established in accordance with jurisdictional requirements and as a minimum, in AECOM offices of more than 50 employees.
- All office equipment and workstation design and installation shall take ergonomic performance into account. Equipment and workstations shall be, as far as practicable, designed and installed to suit the individual(s) interacting with them.
- Workplace ergonomic hazard assessments shall be performed when necessary and required controls implemented as far as practicable.

## 300 Field

### 3.1 Confined Space Entry

- All confined spaces shall be evaluated and classified by a competent person as permit or non-permit.
- Efforts shall be made to eliminate the need to enter a confined space where practicable.
- Confined space entries shall be planned and managed by competent personnel.
- Only trained, authorized and fit for duty personnel shall enter, or attend the entry of, a confined space.
- No entry shall occur without an assessment that includes hazard identification and appropriate hazard control measures (e.g., suitable atmospheric testing requirements defined, inspection requirements to confirm equipment is fit for purpose, etc.).
- A rescue plan shall be prepared and communicated to the entry and rescue teams.
- Confined space entry shall never be conducted alone.
- Atmospheric testing is required for all permit-required confined spaces, and if necessary to confirm absence of atmospheric hazards in non-permit confined spaces.

### 3.2 Working at Heights / Fall Protection

- An assessment shall be completed prior to the start of working at heights.
- Where practicable eliminate the need to work at heights. Alternatively a safe working platform shall be a priority (e.g., elevated lift or scaffolds). Fall prevention shall take preference over fall arrest systems.
- As a minimum standard, fall protection is required and will be provided for any work/job/task to be performed above the normal walking/working surface at heights of 6 feet (2 meters) or greater in the construction, mining, and demolition industry, and 4 feet (1.2 meters) or greater in all other industries. Local regulatory standards or consensus standards that are more conservative than this minimum standard shall be applied in the applicable jurisdiction.

- Only competent / qualified / trained personnel shall select and use personal fall prevention/arrest systems or access equipment that provides appropriate protection from falls (e.g., aerial lift, scaffold).
- Edges shall be considered when evaluating proper fall protection.
- Only competent / qualified personnel shall erect, change, dismantle and inspect scaffold.
- There shall be a rescue plan for personal fall arrest systems in place for work at heights.
- An appropriate exclusion zone shall be established when working at heights.
- Three points of contact (two hands and one foot, one hand and two feet) shall be maintained when accessing ladders or other structures. Ladders shall not be used as a working platform.

### **3.3 Demolition**

- Demolition operations shall be planned and managed by competent personnel. Where appropriate to accurately identify applicable hazards, an engineering survey of the structure shall be incorporated into the work planning (e.g., planning for mechanical equipment, debris containment, etc.).
- Applicable permit to work processes shall be followed prior to demolition work commencing.
- An assessment shall be completed that identifies and documents the hazards and controls associated with the planned demolition activities.
- The demolition structure shall be assessed for the presence of harmful materials. Methods for monitoring, testing and management of potential exposures to atmospheric contaminants will be established and evaluated by a qualified person.
- All activities involving demolition equipment, explosives and blasting shall be managed by competent and authorized personnel.
- All sources of energy including, but not limited to, electric, gas, water, steam, sewer, and other service lines shall be isolated.

### **3.4 Energy Isolation**

- Where the release of energy during major replacement, repair, renovation, or modification of machinery, equipment, or systems or during installation of new machines, equipment or systems may cause injury to personnel, an assessment shall be conducted.
- Lockout tagout (LOTO) activities are required when:
  - An unexpected energization or start-up of machines and/or equipment would result in the release of stored energy which could cause injury to an employee.
  - Any employee (or contractor) is required to remove or bypass a guard or other safety device.
  - Any employee (or contractor) is required to place any part of his body into the mechanism of a piece of equipment or path of hazardous energy.
- No work shall be initiated (including LOTO procedures) prior to obtaining any required work permits.
- Only qualified and licensed personnel shall be allowed to work on energized systems including testing and tagging of equipment.
- Competent personnel shall verify systems are de-energized prior to conducting work activities.
- Locks shall not be removed without proper authorization.
- Identify and communicate to all Affected Employees and to all Employees whose work operations may be in an area where LOTO procedures may be utilized.
- LOTO procedures shall include requirements applicable to:

- Shut-down of equipment or request for de-energization of an energy source(s).
- Lockout of energy source(s) and tagging to identify the lockout controls and parties involved.
- Inspection and verification of de-energization, and application of locks and tags.
- Methods to coordinate multiple locks and the continuation of LOTO protection through shift or personnel changes.
- Control and accountability of locks and tags, including processes for emergency lock removal.
- Equipment-specific LOTO procedures.

### **3.5 Electrical Safety**

- All applicable electrical codes, SH&E procedures and manufacturer's specifications shall be followed to eliminate the need to directly work on live electrical systems where practicable.
- Electrical work, (meaning work associated with equipment or systems of 50 volts or greater, or a current of 20 amps or greater) shall be assessed, planned and managed by competent personnel.
- Only competent, authorized and fit for duty personnel shall perform work on live electrical system components.
- Written and approved justification is required to work on energized systems, and is only authorized when de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations (life supporting interruptions, deactivation of emergency alarms, shutdown of ventilation equipment in hazardous location).
- A permit to work process shall be established and implemented for live electrical work.

### **3.6 Excavation & Trenching**

- Excavation and trenching operations shall be planned, managed and executed by competent personnel.
- Applicable permit to work processes shall be followed prior to excavation or trenching activities commencing.
- Before any excavation work is undertaken, an assessment shall be conducted to identify, assess and manage the hazards present.
- Overhead obstructions and underground utilities / installations shall be clearly identified.
- Appropriate control measures to prevent contact with overhead obstructions and underground utilities / installations, including establishing suitable clearances, shall be established prior to work commencing.
- Excavations greater than 1.5 meter (5 feet) shall be inspected by a competent person.
- Fit-for-purpose equipment and protective systems (e.g., barriers, lighting, signage, etc.) shall be selected, installed, operated and maintained in a way that minimizes the risk of injury to personnel and damage to property.
- Inspection of excavations and any protective systems shall be undertaken by a competent person as appropriate to the conditions and in compliance with regulatory requirements.

### **3.7 Underground Work / Tunneling**

- Tunneling operations shall be planned, managed and executed by competent personnel.
- Project managers or supervisors are responsible for confirming employees involved in underground work possess any required training, registrations or certifications.
- Applicable permit to work processes shall be followed prior to underground work / tunneling activities commencing.

- Before any underground work is undertaken, an assessment shall be conducted to identify, assess and manage the hazards present.
- A safe means of access to and egress from all work locations shall be provided and access to all openings controlled to prevent unauthorized entry.

### **3.8 Heavy Equipment**

Heavy equipment (also referred to as mobile equipment) includes equipment such as backhoes, excavators, skid steers, graders, loaders, dozers, tractors, cranes, drills, and draglines.

- Verify that employees comply with applicable statutory, client and supplier requirements relevant to operating heavy equipment.
- Tower cranes and personnel hoists shall be inspected by an independent third party both at the third party's facility and at the site prior to mobilization.
- Heavy equipment shall be selected, equipped, operated, inspected and maintained in a way that enables safe operation, protects personnel from harm, and conforms with regulatory and manufacturer requirements.
- Ground guides / spotters shall be used to facilitate safe movement of heavy equipment near personnel, equipment and utilities, and when obstructions or congestion present hazards to safe operation.
- Back up alarms or equivalent means to allow for safe reverse movement, are required on all heavy equipment.
- Daily documented inspections shall be completed on all heavy equipment prior to operation.
- Only authorized operators who are fit for duty, and meet jurisdictional requirements shall operate heavy equipment.
- All local laws including signs, postings, regulations, and codes applicable for the jurisdiction in which the equipment is being operated shall be observed.
- Heavy equipment operations shall be adequately separated from light vehicles, workers and pedestrians. If separation is not possible, appropriate procedures shall be implemented to ensure the safety and health of personnel involved.
- Positive communication shall be implemented between ground personnel and heavy equipment operators.

### **3.9 Lifting Operations**

- Lifting operations shall be planned, managed and executed by competent personnel.
- Operators, riggers, banks-man and inspectors shall be certified according to jurisdictional requirements to carry out their work as it relates to lifting operations.
- Fit-for-purpose lifting equipment shall be selected, positioned, installed, operated and maintained in a way that minimizes the risk of injury to personnel or property damage. This is to include equipment used for incidental lifts.
- Inspection and testing of lift equipment shall be undertaken by a qualified person.
- No lifts shall commence without a lift plan in place and approval by a qualified person.
- Critical lifts require a formal, written plan. A critical lift is a non-routine crane lift requiring detailed planning and additional or unusual safety precautions. Critical lifts include:
  - Lifts made when the load is greater than 75 percent of the rated capacity of the crane in the configuration that the lift will be made;
  - Lifts that require the load to be lifted, swung, or placed out of the operator's view;
  - Lifts made with more than one crane or hoisting device;

- Lifts involving non-routine or technically difficult rigging arrangements;
  - Lifts of long lead time permanent materials;
  - Lifts that involve lifting loads over structures or equipment;
  - Lifts taking place in a confined or limited access areas;
  - Hoisting personnel with a crane or derrick; or
  - Any lift which the lift supervisor, operator, or other management personnel believes should be considered critical.
- Lift plans shall specify wind restrictions in accordance with jurisdictional requirements, manufacturer requirements. As a minimum 30 mph (48 km/h) shall be the maximum wind speed for material hoisting, and 20 mph (32 km/h) for hoisting of personnel.
  - Audible alarms or equivalent communications means shall be utilized to alert personnel in the area immediately prior to the imminent lifting operation.
  - Appropriate exclusion zones shall be defined and in place prior to lifting operations commencing so as to prevent the risk of injury from the equipment or the load falling or striking personnel, and may be comprised of physical barriers, warning signs, signage and/or spotters.
  - Taglines shall be used to control load movement. If tagline usage poses a safety hazard this shall be reflected in the planned procedure and the task hazard assessment, and a short line of suitable length shall be attached to allow the worker to catch the load.

### **3.10 Working Alone**

- An employee is considered a lone worker if he / she is performing work with no line of sight or direct voice communication with another person who is aware of their assignment and capable of initiating emergency response.
- When traveling alone, staff shall take appropriate precautions, including notifying their manager of the travel plans, check in times, as well as carrying a communication device and appropriate safety equipment.
- Managers shall plan work to restrict personnel from working alone on any site without an appropriate risk assessment, controls and approvals. If an employee will be out of contact with other personnel, the manager shall establish a buddy system or check-in procedure with another employee or responsible person.
- Employees shall not conduct permit required or high residual risk tasks (e.g., confined space entry, work on an energized system) while working alone.
- Where employees are undertaking office / computer based work alone, outside of normal working hours, they shall confirm security measures are in place (e.g. lock doors), support can be contacted and provided in the event of an emergency, and where appropriate, check-in procedures are established.

### **3.11 Temporary Works**

Temporary works are the structures and installations enabling permanent construction to take place (e.g. formwork, false work, precast, shoring, scaffolding, back propping, temporary structures, etc.).

- Temporary works shall be identified, designed and independently verified by appropriately qualified persons, and shall be installed in accordance with the design. Installation shall be verified by an appropriately qualified and competent person prior to initial use and loading.
- Temporary works shall be regularly inspected by competent persons.
- No changes to installed temporary works shall be made without prior acceptance of the designer, and if necessary, further design certification and independent verification of the changes.

- Temporary works shall be physically protected and secured where there is a risk of collision, or damage through adverse weather conditions or adjacent work practices.

### **3.12 Unmanned Aircraft Systems (UAS)**

All AECOM operations using UAS shall be properly planned, managed, and executed to ensure compliance to applicable requirements and prevent harm. AECOM has established the UAS Working Group; a team comprised of SH&E, Insurance, Operations, and UAS expertise. The UAS Working Group provides oversight of UAS operations in order to:

- Provide expertise and support for commercial UAS operations within AECOM to ensure compliant, professional and responsible operations.
- Review proposed UAS activities in AECOM for adherence to established procedures and operating guidelines, approval of staff, performance in accordance with project work plans, and approval by UAS subject matter experts.
- Approve UAS operations as appropriate and coordinate approved UAS activities with the Insurance function for appropriate insurance coverage.
- Ensure field-level risk mitigation strategies are developed and integrated with the project work plans, and that flight safety briefings with all project personnel are conducted prior to the flights.

### **3.13 Working on or Near Water**

- Work activities that entail operations on, above, under or near water shall be assessed for hazards and the hazards appropriately mitigated.
- If applicable to the identified hazards, a rescue plan and communication arrangements shall be established.
- The hiring or leasing of water craft shall take into consideration the seaworthiness of the vessel and that only licensed personnel can operate the craft.
- Diving activities are prohibited unless specifically approved by the VP of SH&E or designee (e.g., Diving Board).

### **3.14 Marine Safety & Vessel Operations**

- Project managers shall ensure boats / vessels selected are appropriate to the planned work activities and vessel operators are licensed to operate in the applicable jurisdiction.
- All boats and vessels shall be properly equipped and operated by a qualified vessel operator (e.g., Marine Operations Superintendent, Master Mariner, Barge Captain, or similar authority and title) in accordance with the applicable jurisdiction's Marine Safety Laws.
- A site-specific SH&E Plan, Float Plan and any other SH&E planning documents shall be developed and in place and prior to vessel operation.

### **3.15 Rail Corridors**

- AECOM employees shall not enter railroad rights of way without appropriate coordination and approval by a local railway employee (or representative of the railway owner) with knowledge of the operation and means and authority to ensure on track safety.
- Prior to performing work in a railroad right of way or railyard, AECOM employees will be provided with clear instructions applicable to the specific railroad operations, associated hazards, procedures and requirements to ensure employee safety associated with occupying the railroad right-of-way / fouling of tracks and the means of communication.
- AECOM employees and equipment shall not foul the track (be in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment) without securing appropriate approvals.

- An on-site safety briefing shall be conducted at the start of the shift, after work breaks, and any time there is a change in the nature of the work, the method of on-track safety being provided, or a change in the work area environment. Additional parties shall be engaged and included as required and appropriate (e.g., host railroad employee with the means and authority to provide on track safety protection).
- Written documentation of the on-site safety briefing shall be provided by the AECOM employee-in-charge (EIC) of the work being performed on railway property.

### 3.16 Munitions & Explosives of Concern / Unexploded Ordnance (MEC/UXO)

- Prior to beginning any activities on a site suspected of MEC / UXO, every effort shall be made to determine whether munitions-related activities ever occurred on the specific work area or within waters on which AECOM operations/activities will take place.
- All MEC / UXO encountered or suspected on AECOM jobsites shall be treated as extremely dangerous. Employees shall not touch the suspected material and shall retreat. Employees shall identify the location, notify other team members, keep all employees out of the area, and report the finding to their supervisor.
- MEC support activities, including surface and subsurface removal activities, shall be handled by UXO-qualified personnel only.

## 1000 Change Log

Rev #	Change Date	Description of Change	Location of Change
1	June 15, 2015	Complete rewrite – integration of URS & AECOM programs	Various locations
2	August 1, 2016	Refer to SH&E Management System Manual Edit Summary – August 2016	Various locations
3	August 1, 2017	Refer to SH&E Management System Manual Edit Summary – August 2017	Various locations
4	January 15, 2019	Rewrite and restructure into 1 manual and 3 attachments (this document as ATT3). Refer to SH&E Management System Manual Edit Summary – January 2019	Various locations
5	May 3, 2019	Added reference to S2-001-ATT4 SH&E High Risk Events Guidance	Section 2.2