



Environmental Health & Safety
(EH&S)
Contractor Handbook

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1.0 Introduction

This handbook sets forth General Atomics and its affiliated companies (the “Company”) environmental, health and safety (“EH&S”) requirements that Contractors (as defined below) must comply with when performing work on behalf of the Company or on Company owned, operated, leased or controlled property (“Company Sites”). This handbook is to be used by responsible managers and Project Managers (as defined below) who hire and oversee Contractors, service providers or other agents.

Contractors must have a written EH&S program and conduct their operations in accordance with applicable Federal, State and local rules and regulations. In addition, Contractors must comply with Company contractual and EH&S interface requirements as described herein. The Company reserves the right to take any and all actions which it determines to be appropriate against any Contractor who fails to follow these instructions.

The Licensing, Safety and Nuclear Compliance (“LSNC”) Department establishes the overall direction of the Company’s contractor safety program, and the Site EH&S Organization implements such program.

2.0 Definitions

“Confined Space” means a space that:

- is large enough and configured so that a person can enter and perform assigned work, but
- has limited or restricted means for entry or exit (e.g., tanks, vessels, silos, storage bins, hoppers, vaults and pits), and
- is not designed for continuous occupancy.

“Contractor” means a vendor providing or performing a specified service for the Company. This term also includes Contractor employees, personnel and any sub-contractors of the Contractor.

“EH&S Representative” means a Company employee responsible for EH&S matters on behalf of the Company for a project. The EH&S Representative is a member of the Company’s LSNC Department or Site EH&S Organization.

“Incident” means any unplanned or unexpected, distinct EH&S-related event or mishap that interrupts the completion of an activity, and that may result in injury or illness, property damage, near-miss, or release of a hazardous substance or material into the environment.

“Project Manager” means a Company employee designated by the responsible manager as the main point-of-contact responsible for oversight and monitoring of the Contractor’s onsite activities. The Project Manager is typically, a member of the Facilities Department or the Requesting Department.

“Project-Specific EH&S Plan” means a written plan developed by the Contractor, and approved by the EH&S Representative, that identifies project-specific EH&S hazards and related safety controls and safeguards.

“Powered Industrial Truck” means an industrial vehicle used to carry, push, pull, lift or stack material, powered by an electric motor or an internal combustion engine, including vehicles commonly called forklifts, forklift trucks, rider trucks, motorized or powered hand trucks, pallet trucks and tugs.

“Requesting Department” means the Company department requesting the services of the Contractor.

“Serious Incident” means any Incident that results in:

- a fatality;
- injury or illness which requires inpatient hospitalization for a period in excess of twenty-four (24) hours for other than medical observation;
- loss of consciousness, loss of any member of the body, or serious degree of permanent disfigurement;
- a significant environmental release or spill; or
- an uncontrolled fire.

“Site EH&S Organization” means the group responsible to implement EH&S programs at a specific Company location.

3.0 Incident Reporting and Emergency Procedures

3.1 Emergency Reporting of Serious Incidents

Contractors must immediately report any Serious Incident using the 24/7 emergency numbers provided below. Follow-up notification must also be made as soon as reasonably possible to the Project Manager.

GA San Diego County locations	(858) 455-2000 (x2000 from an internal phone)
GA-ASI locations	(858) 312-4444 (x4444 from an internal phone)
All other Company locations	911 (9-911 from internal phone) With required follow-up notification to GA Security at (858) 455-2000

3.2 Reporting of Incidents

Contractors must report all Incidents, and all occurrences having the potential to impact Company operations, to the Project Manager or EH&S Representative as soon as practicable, but no later than twenty-four (24) hours following the occurrence.

In the event of a Serious Incident, follow the emergency reporting instructions in Section 3.1 above, then follow-up with an Incident report as described in the preceding paragraph. Depending on the nature and severity of the Incident, the Project Manager or EH&S Representative may require the Contractor to conduct an investigation and submit a written report.

3.3 Emergency Exits and Corridors

Contractors must not block or obstruct emergency exits and corridors. Emergency exits shall be used only in an emergency situation and are not to be used for general entrances or exits. Doors must not be propped open.

3.4 Evacuation Procedures

Contractors must review Company-posted evacuation maps and the Contractor's procedures with their personnel prior to commencement of work. If an emergency requires the evacuation of a work area, the Contractor's personnel shall move immediately to the assembly area as specified on the evacuation map in an orderly manner, and report to the Project Manager or the designated assembly point coordinator. Re-admittance to the building or resumption of work in an evacuated area will be allowed only after the incident commander or other responsible official approves re-entry into the building.

4.0 General EH&S Requirements

4.1 Authorization and Coordination of Work

Before work begins, the Contractor must coordinate all relevant aspects of the work or task with the Project Manager. This will include a review of work schedules, any known or reasonably anticipated hazards and any possible impacts on Company operations. The Project Manager must inform the Contractor of any known hazards that the Contractor may encounter in the course of performing work at the Company Site.

Depending on the scope of work and activities planned, the Company may require the Contractor to provide a Project-Specific EH&S Plan. In addition, the Contractor must notify the Project Manager and receive advance authorization for work involving:

- hot work permits;
- Confined Space permits;
- fire protection systems;
- building controls, ventilation systems or monitoring systems;

- utilities;
- work on idle or abandoned pipelines and tanks;
- lockout/tag out;
- use of hazardous chemicals and/or generation of hazardous waste;
- entry into any alarmed area;
- access to roof or attic areas;
- work on or around potentially asbestos-containing material;
- overhead lifting;
- saw cutting, coring or chipping concrete;
- excavations;
- work in close proximity to underground or above-ground utilities;
- work at heights;
- blasting and the use of powder-actuated tools; or
- inside-building use of gasoline, diesel or propane-powered vehicles or equipment.

4.2 EH&S Communication

EH&S-related communication and interaction between the Contractor and the Company must be coordinated through the Project Manager. The Project Manager shall serve as the focal point for all such interfaces and information sharing.

4.3 EH&S Training and Instruction

The Contractor is responsible for the Contractor personnel's compliance with training requirements of applicable EH&S laws and regulations. The Company reserves the right to perform audits of Contractor training records to verify compliance with training requirements.

4.4 Use of Company Tools or Utilities

Contractors are not allowed to use Company tools, materials, equipment, vehicles or supplies, unless specifically authorized in advance by the Project Manager. Contractor use of Company water lines, air systems, electrical power and other utilities is only allowed when expressly approved in advance by the Project Manager.

4.5 Security Access and Badges

All Contractor personnel must wear an appropriate Company badge, clearly displayed at all times, while on a Company Site. Contractor personnel are not allowed to travel to areas at the Company Site beyond the specific scope of their work.

4.6 Alcohol and Drugs

The possession or use of alcoholic beverages and illicit regulated or illegal drugs is not permitted on any Company Site.

4.7 Vehicle Traffic and Parking at Company Sites

Contractors must observe all Company traffic, speed limit and parking signs and regulations. Walkways are to be used where provided. Contractors shall not take shortcuts through operating areas of buildings. Contractors are prohibited from entering secure areas without proper authorization.

All Contractor vehicles must be parked in authorized areas only. Contractor vehicles must not block roadways, fire hydrants or red curbs.

Vehicles to be used in connection with Contractor work at a Company Site (e.g., delivery trucks, cranes or other industrial vehicles) require prior approval from the Project Manager. All packages, toolboxes, containers and vehicles on a Company Site are subject to inspection by Company Security.

All Contractor vehicles on a Company Site must be in safe working condition. Routine vehicle maintenance and vehicle washing on a Company Site is strictly prohibited. Contractors shall notify the Company Project Manager or EH&S Representative of any vehicle leak (e.g., of oil, fuel or hydraulic fluid) which occurs on a Company Site, and must clean it up appropriately.

4.8 Smoking

Smoking is not permitted in any Company buildings or construction areas. Smoking is permitted only in specifically designated and identified outdoor smoking areas at Company Sites. Cigarette butts must be disposed of properly.

4.9 Housekeeping

Contractors must maintain work areas on Company Sites in a safe and orderly condition throughout the duration of the job. All material, tools and equipment must be properly secured to prevent rolling or falling. A safe access-way to all work areas must be maintained. The Contractor must remove trash and debris from the work area at least daily. Contractors must provide their own waste containers and are not permitted to use Company waste containers unless specifically approved.

4.10 Inspections

The Project Manager or EH&S Representative may perform periodic work area inspections, e.g., daily, or as required throughout the duration of the project. At the completion of the project, the Project Manager may conduct a final inspection with the Contractor. Any identified open items must be addressed by the Contractor in a timely manner.

5.0 Safety & Health Requirements

5.1 Hazardous Materials

Contractors must notify the Project Manager prior to bringing or storing chemicals on-site. The Contractor must have a current Safety Data Sheet (formerly known as Material Safety Data Sheet or MSDS) readily available at the job site for each chemical brought on-site. The Company reserves the right to review and approve in advance the use of any chemical prior to being brought onsite.

Contractors must transport, handle, store and use chemicals in accordance with all applicable governmental regulations and in accordance with Company requirements as communicated by the Project Manager or EH&S Representative. The Contractor must label chemical containers to identify contents and health hazards. The Project Manager, in conjunction with the EH&S Representative, must review and approve any work with hazardous or highly odorous chemicals that are used adjacent to interior occupied areas, near air handling equipment, in fan rooms, on roofs or in interstitial areas.

Contractors are prohibited from disposing of chemicals or chemical-containing materials, including empty containers, by any means, on a Company Site. Contractors must remove all hazardous materials from the Site upon completion of the project.

5.2 Flammable Materials

Contractors handling flammable liquids, vapors, gases or dusts, must use bonding and grounding as appropriate. Contractors must implement adequate measures to reduce or eliminate the risk of ignition through build-up and discharge of static electricity.

Electrical machinery, equipment, tools, battery-powered meters, phones, pagers, flashlights, work lighting or any other electrically powered equipment in “electrically classified” areas (i.e., areas where flammable or explosive substances may be present) must be intrinsically safe (explosion proof) for Class 1, Division 1 or 2 (as appropriate) as defined in the National Electric Code.

5.3 Compressed Gas Cylinders

Contractors who bring portable cylinders onto a Company Site must comply with United States Occupational and Safety Health Administration (“OSHA”) standards applicable to the gas in those cylinders. All cylinders must bear valid test dates. Contractors shall not bring onto a Company Site any cylinder showing evidence of damage, defects or missing parts. The Contractor is responsible for the timely removal of all gas cylinders from the Company Site.

Contractors must ensure that all cylinders are capped and secured in an upright position when not in use. Cylinders must not be stored in areas where the heat is excessive (as per the Safety Data Sheet or other vendor-supplied information) or near ignition sources or where they may form part of an electrical circuit. Contractors must store oxygen cylinders separately from fuel gas

cylinders or combustible materials by a minimum distance of twenty (20) feet or by a noncombustible barrier at least five (5) feet high having a fire resistance rating of at least one-half (1/2) hour. Cylinders must be grouped by content; empty cylinders must be stored separately and marked “empty.”

5.4 Confined Spaces

Contractors must not enter any Confined Space at a Company Site before approval from and coordination with the Project Manager or EH&S Representative. Any Confined Space entry must be performed in compliance with OSHA requirements, and with Company requirements as communicated by the Project Manager or EH&S Representative.

The Contractor is responsible for providing all necessary safety equipment (e.g., air monitors, harnesses, lifelines, tripods or ventilation equipment) for a Confined Space entry.

5.5 Crane Operations

Contractor cranes and hoists used on Company Sites must be in good working condition, and meet OSHA requirements. The Contractor is responsible for ensuring that only trained and qualified personnel are allowed to operate such equipment.

Operations involving the use of a crane or other overhead lifting operations must be authorized by the Project Manager. The Company may require verification of equipment inspection and rigging certifications and may also require the Contractor to provide a Project-Specific EH&S Plan for higher-risk lifts, e.g., lifting over an occupied building, or a chemical storage or use area or within twenty-five (25) feet of any electrically energized overhead high-voltage lines. This plan must address items such as barriers, barricades and attendants.

5.6 Hot Work

Contractors must coordinate with the Project Manager or EH&S Representative when any activities are planned which produce sparks or use an open flame. The Contractor must post a copy of the applicable hot work permit at the work site. The Contractor is responsible for ensuring that all conditions required by the hot work permit are maintained throughout the duration of the activity.

Contractors must properly cover areas of the plant and buildings during welding, cutting, soldering, brazing and grinding operations to prevent damage from flying sparks or slag. Combustible materials must be removed, or draped and shielded with fire resistant materials, when located near operations that require a hot work permit. Particular attention must be paid to work in elevated areas to prevent slag or hot materials from falling onto work areas below. The Contractor must provide an appropriate fire extinguisher located adjacent to the work area and establish a “fire watch” for all hot work; the “fire watch” is to remain on location for thirty (30) minutes following conclusion of the work.

Contractors must provide exhaust ventilation whenever cutting or welding in small, closed or Confined Spaces, or where fumes may present a hazard to Company employees or others. Arc welding operations must be physically shielded from any other personnel in the area. Contractors must close gas cylinder valves and install protective caps when transporting cylinders. Oxygen and acetylene cylinders must not be stored together, unless secured on a welding cart. Welding carts must have a permanently attached fire extinguisher.

5.7 Electrical Safety

The Contractor must comply with OSHA Electrical Safety Standards and National Fire Protection Association (“NFPA”) 70E. The Contractor must coordinate any electrical work performed on a Company Site with the Project Manager.

The Contractor is required to have its own electrical safety program in place for its personnel, including relevant safety training and safety equipment (e.g., safety glasses, insulated gloves, mats, tools, protective clothing, head flash protection, ground fault interrupters and digital multi-meters).

Contractor extension cords are only allowed for temporary use at Company Sites. Where required, extension cords must be properly rated for the location and type of use, and located so as not to pose a tripping hazard. Connecting extension cords together is not allowed.

Contractor electrical tools and test equipment must be well insulated and in good working condition. No equipment with broken or frayed insulation or splices, or exposed wires or conductors is allowed on a Company Site. Electrical equipment must either be labeled as “double-insulated” or UL-approved, or equipped with grounding wires and plugs. All exposed non-energized conductive parts must be grounded. Energized parts of electrical equipment operating at fifty (50) volts or more must be guarded against accidental contact.

Contractors must use explosion-proof lighting (Class 1, Division 1, as defined in the National Electric Code) in areas that may contain hazardous concentrations of flammable gases or vapors. Portable lighting for such purposes must be clearly labeled as such (i.e., “intrinsically safe” or other similar designation).

5.8 Lockout/Tagout and Hazardous Energy

Contractors performing maintenance or servicing of equipment, must have a written hazardous energy control and lockout/tagout program that complies with OSHA requirements. Contractors must coordinate any lockout/tagout activities with the Project Manager or EH&S Representative, including use of system-specific procedures for equipment with multiple energy sources.

The Contractor must provide training records or other relevant documents as needed to verify compliance with OSHA requirements, upon request of the Project Manager or EH&S Representative.

5.9 Excavations and Barricading

Prior to the start of any excavation work on a Company Site, the Contractor must obtain a Company trenching/excavation permit and the approval of the Project Manager and EH&S Representative. Contractors are responsible for compliance with OSHA regulations. The Contractor must back-fill all excavations as soon as practicable after work is completed and remove all associated equipment.

Contractors must place lighted barricades completely around excavations, trenches, open ditches, obstructions or other hazards to personnel. Barricades shall be spaced no further apart than fifteen (15) feet and protection between barricades shall consist of at least a three-inch (3”) wide yellow, or yellow and black, barricade tape with appropriate warnings.

5.10 Floor and Roof Openings

To prevent risks associated with floor and roof openings, Contractors must install appropriate barriers, railings and/or covering materials substantial enough to safely sustain the load of pedestrians or vehicular traffic over such openings. The Contractor is responsible for supplying and maintaining temporary barriers and covers. Barriers must be in place whenever the area is unattended. Guardrails and toe boards may be used in place of covers when it is impracticable to cover an opening.

The Contractor must maintain roof integrity by temporary means if the job requires the roof to be left open overnight. The Contractor must not leave the jobsite without closing the roof opening against weather and dust.

Contractors must obtain prior written approval of the Project Manager before making a penetration of any kind in a Company Site wall, floor or ceiling.

5.11 Powered Industrial Trucks

The Contractor is required to have its own Powered Industrial Truck program in place for its personnel, including relevant safety training. Contractors are not permitted to operate Company-owned Powered Industrial Trucks or motorized equipment on a Company Site without the prior written approval of the Project Manager.

Powered Industrial Trucks brought onto a Company Site by Contractors must:

- 5.11.1 meet OSHA requirements;
- 5.11.2 be in good mechanical condition and free of leaks of oils and hydraulic fluids;
- 5.11.2 be appropriate for the specific area of use at the Site;
- 5.11.3 be equipped with an audible back-up alarm that sounds continuously as the vehicle is backing up;
- 5.11.4 not use propane if operated indoors (unless prior written approval is obtained from the Project Manager);

- 5.11.5 have loads secured at all times when in operation; and
- 5.11.6 have a functional horn that must be used at all blind intersections.

5.12 Ladders

Ladders brought onto a Company Site by Contractors must meet OSHA requirements. Ladders must be labeled with the name of the Contractor and be in good working condition and free from defects or damage. Chairs, partitions or other furniture may not be used as a substitute for a ladder. Contractors are not permitted to use Company ladders or metal ladders without the express prior permission of the Project Manager.

Ladders used in high-traffic areas or around material handling equipment at a Company Site must be guarded, or an attendant must be on duty, to prevent the ladder from being hit or knocked over.

5.13 Elevated or Overhead Work

The Contractor must have its own elevated work safety program in place for its personnel which complies with OSHA regulations. This includes relevant training and equipment (e.g., fall arrest systems, positioning devices and safety nets) for Contractor personnel.

Contractor scaffolds must be in good working condition and of required strength and stability. The footing or anchorage must be sound, rigid and capable of supporting the maximum intended load without settling or displacement. Guardrails, mid-rails and toe boards must be installed on all open sides and ends as required by OSHA regulations.

Contractors must use safety nets when the work area is greater than twenty-five (25) feet above grade or floor level and the use of scaffolds, catch platforms, temporary floors, safety lines or safety belts is impracticable.

Contractors performing overhead work with the potential for falling objects must coordinate safety precautions with the Project Manager or EH&S Representative. The use of netting, toe-boards, shielding or other measures may be required. Prior to starting overhead work, the Contractor must post any required signs to restrict entry into the area. The floor area beneath the overhead work must be barricaded to an area at least two (2) feet wider than the area of the elevated work platform. Hard hats or head protection are required within the designated area.

All Contractor elevating work platforms, including scissor lifts, telescoping boom lifts, forklift platforms and other power-operated work platforms, must be maintained and used in accordance with OSHA regulations.

5.14 Personal Protective Equipment (“PPE”)

Contractors are responsible for providing ANSI-compliant or equivalent PPE to their personnel. Contractors must also obey any Company-posted PPE requirements.

PPE includes but is not limited to: safety glasses, goggles, face shields, welding goggles or hoods, hand and arm protection, protective clothing, foot protection (steel toed safety shoes or boots), head protection (hard hats or bump caps), respiratory protection, hearing protection and fall protection slings/harnesses.

5.15 Pressurized Vessels, Systems and Components

Contractor pressure vessels, systems and components (e.g., piping) brought onto a Company Site must have been tested, labeled and identified according to the American Society of Mechanical Engineers (“ASME”), Department of Transportation (“DOT”) or other applicable requirements. Unfired pressure vessels must be rated by the appropriate testing group or agency (e.g., DOT or ASME) when subject to more than fifteen (15) psi or when they exceed six (6) inches inside diameter. All compressed air tanks, both stationary and portable, must display current OSHA permits.

6.0 Environmental Requirements

Contractors must ensure that their operations are conducted in accordance with applicable Federal, State and local environmental regulations, and in conformity with Company environmental requirements as communicated by the Project Manager or EH&S Representative.

6.1 Environmental Permits and Licenses

Each Contractor is required to obtain and manage any environmental permits or licenses required for its operations.

When a Contractor’s activities at a Company Site may impact compliance with a Company environmental permit or license, the Contractor must coordinate with the Project Manager or EH&S Representative. Such Contractor activities may include, but are not limited to: potential release to sewer or storm drain; air emission; disturbance of asbestos or lead-containing material; or work on equipment or a system that is regulated under an environmental permit or license.

6.2 Hazardous Waste and Solid Waste Management

The Contractor is responsible for managing and disposing of all hazardous or solid waste generated as a part of its operations at a Company Site in compliance with applicable regulations. No waste may be disposed of on a Company Site, including in trash cans or dumpsters, without prior written consent and approval by both the Project Manager and EH&S Representative.

In accordance with the Company’s commitment to waste minimization, Contractors must employ recognized industry waste management best practices and programs for material reuse and recycling.

6.3 Spills and Environmental Releases

The Contractor must take effective precautions to prevent spills or environmental releases on any Company Site. These precautions include:

- 6.3.1 proper vehicle maintenance;
- 6.3.2 proper storage of chemicals;
- 6.3.3 use of secondary containment as appropriate;
- 6.3.4 availability of spill kits; and
- 6.3.5 training on prevention and mitigation of spills and releases.

In the event of a spill or release by Contractor personnel at a Company Site, the Contractor is responsible to contain the spill and clean it up promptly. The cost of containment, clean-up, disposal and any necessary remediation will be borne by the Contractor. Any such event will constitute an Incident or Serious Incident (as defined above) and must be reported following the procedures set forth in Section 3 of this handbook.

6.4 Storm Water Protection

Contractors must not allow any material, including water, to enter the storm water system. Contractors must adhere to all applicable local-governmental “Best Management Practices” with respect to their operations on Company Sites, including activities such as outdoor material handling, construction activities and washing of equipment.

Each Contractor is responsible for ensuring that all Contractor-owned vehicles brought onto a Company Site are properly maintained and in good working condition such that no oil, antifreeze or other materials are leaked or released onto a Company Site. The Contractor must notify the Project Manager or EH&S Representative immediately in the event of any such release from those vehicles, and must take appropriate and necessary measures to properly absorb or otherwise clean-up and dispose of any released material.

6.5 Waste Water in Company Sanitary Sewer System

Contractors must not permit any material (solid, liquid or gaseous) to enter the Company sanitary sewer system, including sinks, toilets, drains and floor drains, without first obtaining prior written approval from the Project Manager and EH&S Representative.

6.6 Air Emissions

Contractor use of hazardous or odorous chemicals or dust-producing activities near air handling equipment, in fan rooms, on roofs, adjacent to interior occupied areas or in interstitial areas requires prior written approval from the Project Manager and EH&S Representative. Each Contractor must maintain current and valid operating permits for all equipment subject to air-emissions regulations that the Contractor operates on a Company Site. This may include, but is not limited to, portable and temporary engines or generators, grinding booths, pollution control

devices or scrubbers and paint spray booths. Contractors must coordinate with the Project Manager and EH&S Representative with respect to air-permitting.

7.1 Contractor EH&S Handbook Acknowledgement

This page is to be completed by each Contractor representative and each subcontractor representative and returned to the Site EH&S Organization. Hard-copy or scan copies are acceptable.

- I acknowledge receipt of the General Atomics and Affiliated Companies “Environmental Health & Safety (EH&S) Handbook for Working with Contractors” (the “Handbook”).
- I have read and agree to abide by its requirements.
- I will maintain written documentation that all Contractor personnel, including all subcontractor personnel, working on a Company site have been instructed on the requirements contained in the Handbook, and such documentation will be provided upon request of the Project Manager or EH&S Representative.
- I will contact the Project Manager or EH&S Representative with any questions or concerns arising during the course of work.

Name (Please print)	Signature	Title	Co. Name	Date