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Contractor Safety and Health Awareness Overview

Space and Airborne Systems

Agenda

- Raytheon's commitment to safety
- OSHA VPP Program Information
- Overview of SAS and OSHA Contractor Safety and Health Requirements when performing work on site
- Quiz



Commitment to Safety

- Raytheon embraces the ideals and principles of the OSHA Voluntary Protection Program (VPP)
- Raytheon strives for Environmental, Health and Safety (EHS) excellence by adopting best practices that often exceed regulatory compliance standards to promote worker safety
- Our larger sites are expected to achieve VPP Star Certification status
- Contractors play an essential role in Raytheon's quest for safety excellence
- Contractors performing work at Raytheon sites are expected to:
 - Comply with all applicable laws and regulations
 - Adhere to Raytheon EHS standards
 - Support safety excellence to protect contractor and Raytheon employees, Raytheon property and the environment



What Is OSHA's VPP Program?

- VPP recognizes employers and workers in private industry and federal agencies who have implemented effective safety and health management systems, and maintain injury and illness rates below national Bureau of Labor Statistics averages for their respective industries.
- In VPP, management, labor and OSHA work cooperatively and proactively to prevent fatalities, injuries and illnesses through a system focused on: hazard prevention and control, worksite analysis, training, management commitment, and worker involvement.
- To participate, employers must submit an application to OSHA and undergo a rigorous onsite evaluation by a team of safety and health professionals.
- Union support is required for applicants represented by a bargaining unit.
- VPP participants are re-evaluated every three to five years to remain in the program.
- VPP participants are exempt from OSHA programmed inspections while they maintain their VPP status.



OSHA Rights

- You have the right to a safe workplace
- You have the right to contact OSHA
- You have a right to obtain your medical or exposure records
- You have a right to see any citation given to your company for your worksite



Contractor Safety Management

- Raytheon performs a prequalification to ensure that contractors brought on site meet OSHA requirements
- Contractor employees must review the Contractor Environmental, Health and Safety Handbook to ensure understanding of OSHA and onsite requirements
- Contractors, Facilities and EHS will work hand-in-hand to ensure that expectations are communicated and understood by contractors
- Contractors must ensure that employees brought on site have completed the required OSHA training for the jobs they are performing. Evidence of this training may be requested by the Raytheon PM or by EHS at the site where the work is done.



Contractor Safety Management

- Contractors must perform Job Hazard Assessments (JHA) for high hazard work being performed on site, or when required by the local EHS office
- Employees performing these tasks must be familiar with the JHA
- Contractors must use required Personal Protective Equipment (PPE)
- Contractors must conduct and document periodic inspections
- Contractors must correct safety issues immediately



JOB HAZARD ANALYSIS FORM

Job or Task being evaluated: Swing Grinding Operation

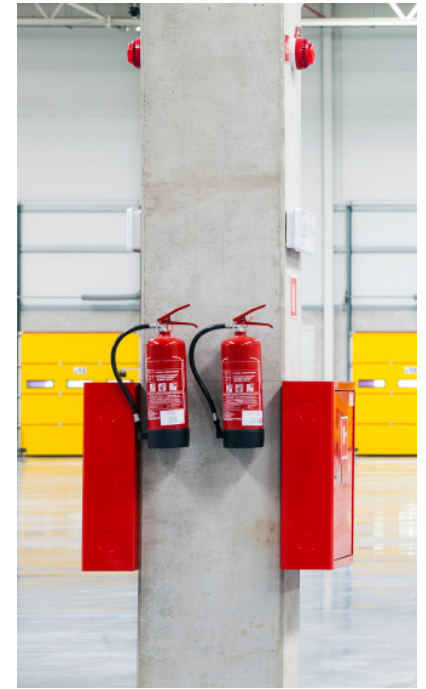
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JHA Team participants: Jim Grindler, L.M. DeBuss

Steps	Potential or Existing Hazards	Corrective Action/Recommended Actions
1. Remove any potential fire hazards and combustibles from the area	1a) Body strain from lifting/twisting 1b) Potential fire if materials are not moved	1a1) Assist operator as trained in how to lift/twist without injury 1a2) Assist operator in testing the strength capability of operating the grinder 1b1) Have combustibles or other system to assume materials are moved to back correct distance or location. The operator must check off the items on the list prior to beginning the operation 1b2) Assume that materials to be grinded are in non-combustible containers
2. Inspect the grinder to assure it is in good operating condition	2a) Operator getting caught in a pinch point 2b) Body strain from lifting/grinding	2a1) Assist that pinch points are properly guarded. 2a2) Assist that operator is aware of where pinch points are. 2b1) Assume operator is trained as how to lift/twist without injury 2b2) Assume operator has the strength capability of operating the grinder

Contractor Safety Management

- Contractors are responsible for complying with OSHA regulations and Raytheon EHS requirements
- General contractors are responsible for ensuring that all subcontractors working on a Raytheon site understand and comply with OSHA and Raytheon EHS requirements
- Contractors are responsible for their actions, ensuring that work does not endanger contractor employees, Raytheon employees or visitors
- Compliance with safety rules and regulations is a condition of employment when working on Raytheon facilities
- Contractor employees must:
 - Work with the Project Manager or Sponsor to understand Raytheon requirements
 - Identify all job hazards and use the appropriate equipment or PPE to perform the job safely
 - Ensure work areas, particularly construction area boundaries, are clearly marked to prevent unauthorized access.



Contractor Safety Management

- Safety communications are a key component of contractor safety. Contractors must:
 - Hold frequent safety meetings with employees and subcontractors
 - Encourage reporting of safety issues at safety meetings
 - Take action to promptly mitigate/correct any hazards or identified risks
 - Document safety meetings and attendance
 - Discuss safety issues with the Raytheon PM and EHS
- Contractors are provided a copy of the Contractor Environmental, Health and Safety Handbook during pre-bid qualification and at contract award
- Contractors must read, understand and follow procedures and requirements in the handbook
- Contractors must provide EHS with OSHA 300 logs and injury rates as identified in the handbook annually



Enforcement

- All contractors will be held accountable to work safely and adhere to OSHA and Raytheon EHS requirements
- Raytheon has zero tolerance for the following prohibited actions:
 - Willfully ignoring OSHA regulations and EHS requirements established in the Raytheon Contractor Environmental, Health and Safety Handbook
 - Horseplay, fighting, gambling, swearing, alcoholic beverage consumption, reckless driving, possession of weapons, narcotics, explosive materials and use of recording devices or cameras.
- Failure to follow Raytheon EHS policies can result in disciplinary action including removal from Raytheon property and restriction from bidding on future projects
- Contractor safety infractions and incidents will be tracked by EHS, the Raytheon PMs and Supply Chain Management
- All contractors are subject to Raytheon's corrective action process as specified under Raytheon Company Policy RP-123 Supplier Corrective Action Request (SCAR) Process.

Emergency Information

- Emergency telephone numbers for Raytheon sites:
 - El Segundo: 77777 (in plant) or 310.607.7777
 - Expressway, Plano Parkway and EO Innovations: 42222 (in plant) or 972.344.2222
 - McKinney: 22222 (in plant) or 972.952.2222
 - Goleta: 805.562.4444 or 805.879.2911
 - Forest: 601.469.5846 or 911 from any company internal land line
 - Fort Wayne: 5911 (in plant) or 260.429.5911 (external) for non-medical emergencies. 911 or 9-911 from an internal line for medical emergencies.
 - Largo and St. Petersburg: 4400 (in plant) or 727.302.4400
 - Remember to provide the following information
 - Name
 - Type of emergency: fire, medical, chemical, crime
 - Location
 - Phone number
 - Other information as requested
- If you are off site and need to know the operational status of a specific site, you can contact the SAS Disaster Information Hotline:
855.727.6397

Emergency Information

- Evacuation
 - Know two evacuation routes from your location.
 - Adhere to all building evacuation alarms by evacuating to designated muster areas when:
 - Either fire or smoke is visible, audible alarms are activated or visible alarms are activated.
- Severe Weather/Tornados
 - If severe weather is approaching, listen for alarms and follow site specific instructions for finding the closest shelter. Take care to stay away from windows and doors.
- Power Outages
 - Remain in the work area until emergency power provides light.
 - If emergency power does not come on within 15–20 seconds, an announcement will be made to evacuate.
- Earthquakes (seismic locations)
 - Shelter in place during an actual earthquake.
 - Find a solid piece of furniture (e.g., desk, table) and take cover.
 - Evacuate building when safe and proceed to designated muster areas.
- **Do not leave the site or go back into the building until instructed to do so by Security personnel.**

Where Do I Go?

- In case of an emergency that requires evacuation, each Raytheon site has designated muster (assembly) locations
- Muster locations are the points where head count and other information is given or taken
- Follow evacuation signs and routes that are posted in buildings or around the campus, and proceed to the nearest designated muster area
- Ensure that you and other contractor employees are accounted for, and be sure to report any injuries or known safety issues to evacuation leads



Tornado/Severe Weather

- Take cover in interior dry walled rooms or hallways
- Stay away from windows and skylights
- Do not move to lower floors of buildings
- If outside, come in
- Stay in shelter locations until an “all clear” is given
- Know your nearest shelter location

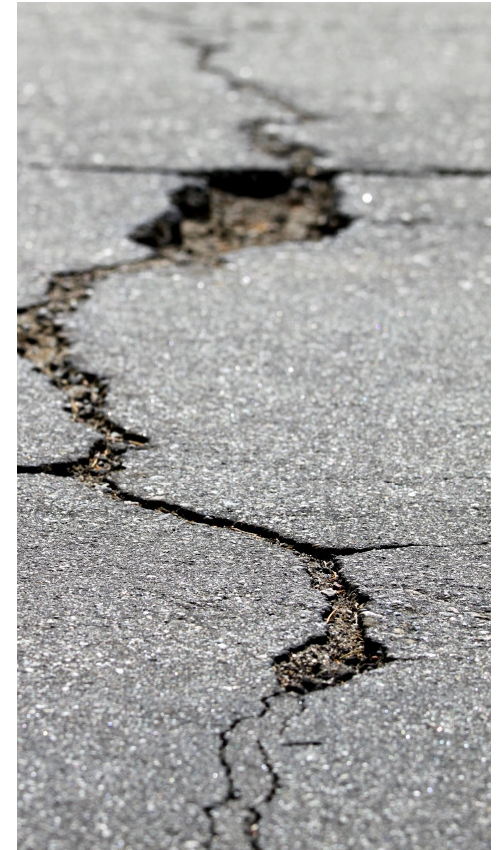


During an Earthquake

- Duck, Cover and Hold On:
 - If you feel the ground shake, immediately take the following precautions
 - Move away from windows, tall file cabinets and bookshelves
 - Do not attempt to exit the building
 - Immediately take shelter under a sturdy desk or other solid object. Kneel down and protect your head.
 - Be aware that the power may go off and the fire alarm/sprinkler systems may activate
 - If you are in an elevator, be patient. In a short time, emergency lights will come on but the car may not move. Pick up the phone, which is connected directly to the Security Console, and let the dispatcher know who and where you are. Emergency response efforts will be made to get you out as soon as possible.
 - An earthquake may damage natural gas lines. Do not light matches or other flammable items.
 - Be prepared for aftershocks
 - If you are outdoors during an earthquake, remain outside and move to an open area away from buildings, power lines and any other structures that could fall. Do not take shelter in parking garages.

After an Earthquake

- Immediately assess your area for hazards or structures that have been damaged. Stay away from items that may fall or tip over, items that show physical damage, or any exposed electrical lines or conduits.
- Check for injured people and anyone requiring medical attention; call the appropriate emergency number. If the phone lines are down, notify any Raytheon emergency team member, evacuation team member or supervisor.
- Do not move injured people unless they are in immediate danger
- Do not use elevators
- Wait for and follow instructions from supervisors, evacuation team members and/or Emergency Services Response Team personnel
- If a building evacuation is initiated, follow normal evacuation procedures and proceed to your assembly area. Remain at your assembly area until further instructions are provided.



Contractor Safety and Health Requirements When Working on Raytheon Sites

- Housekeeping
- Chemicals and Hazardous Communication
- Asbestos
- Permit Required Confined Spaces
- Electrical Safety
 - Energized Work
- Lock Out/Tag Out (LOTO)
- Hot Work Permit (Fire Prevention)
- Fall Protection
 - Unprotected elevated locations 4 feet and above
 - Roof work within 6 feet of unprotected roof edge
- Mobile Lifts, Mobile Cranes
- Ladders/Scaffolding
- Excavations
- Personal Protective Equipment (PPE)
- Emergency Procedures
 - First Aid and Medical Emergencies
 - Accident or Incident Reporting



Housekeeping

- Contractors are responsible for keeping their work areas orderly and neat.
- If work areas pose tripping or slipping hazards to Raytheon employees, proper warning signs must be posted.
- At the close of each workday, contractors must clean and free the work area of all trash, debris, tools, equipment, dust, extension cords and similar hazards. For extremely dusty work, sweeping must be done throughout the day using methods to keep dust from becoming airborne.
- Consult with the Raytheon project manager or EHS for waste and trash disposal. Some contracts will require you to provide a construction waste container.
- Use drip pans or mats for oily equipment (e.g., pipe thread equipment).
- Areas around fuse boxes, electrical switch panels, fire extinguishers and other emergency equipment shall be kept clear at all times.



Chemicals and Hazard Communication

- Be sure to coordinate with your Project Manager and EHS when bringing chemicals onto our site. EHS must receive a complete list of the chemicals and corresponding Safety Data Sheets (SDSs). All sites must be provided with a “Use Authorization Form” for all chemicals to be brought on site before work begins. Check with your local site for any additional requirements.
- All chemicals used at Raytheon have Safety Data Sheets (SDSs) available online. We are happy to provide these at your request.
- All chemicals must be properly labeled.
- All chemicals must be stored correctly: i.e., with closed lids, appropriate storage containers, etc.
- All unused chemicals must be removed from Raytheon property.
- You will receive a briefing from EHS or your Project Manager when working near or around Raytheon chemicals or hazardous work processes.



Asbestos Labels

DO NOT DISTURB ANY ASBESTOS WITHOUT RAYTHEON KNOWLEDGE

If you are required to work around asbestos or perform asbestos abatement, Raytheon will provide you with the proper requirements. Insulation materials at the Raytheon facility that are known to contain asbestos will be appropriately marked.



Confined Spaces

- All contractors whose employees may enter “Permit Required” confined spaces must submit their Confined Space Program to the Project Manager and EHS representative for review and approval prior to commencing work. All “Permit Required” confined spaces have been identified and labeled at point of entry. A completed copy of the permit must be submitted to the Project Manager or EHS.
- All employees must be included in the contractor’s confined space entry program and trained in compliance with OSHA standards. Training records must be provided to Raytheon prior to entry.



Electrical Safety

- All contractor equipment must be properly grounded and in a safe, operable condition.
- No space heaters are permitted unless approved by Facilities.
- No electrical cords may be “repaired” using electrical tape, or be missing a ground prong.
- Ground Fault Circuit Interrupter (GFCI) protection must be used in all outdoor locations, rooftops, wet locations and construction areas where portable powered tools are used.
- All power tools must be maintained in safe working order.
- Do not block electrical disconnects or circuit breaker boxes.
- All contractors performing electrical work must have training in electrical safe work practices, lock out/tag out (LOTO) and arc flash, as applicable. They must wear appropriate PPE and will be provided with appropriate LOTO equipment.
- Any work on energized electrical equipment will be coordinated through Facilities and EHS for approval.



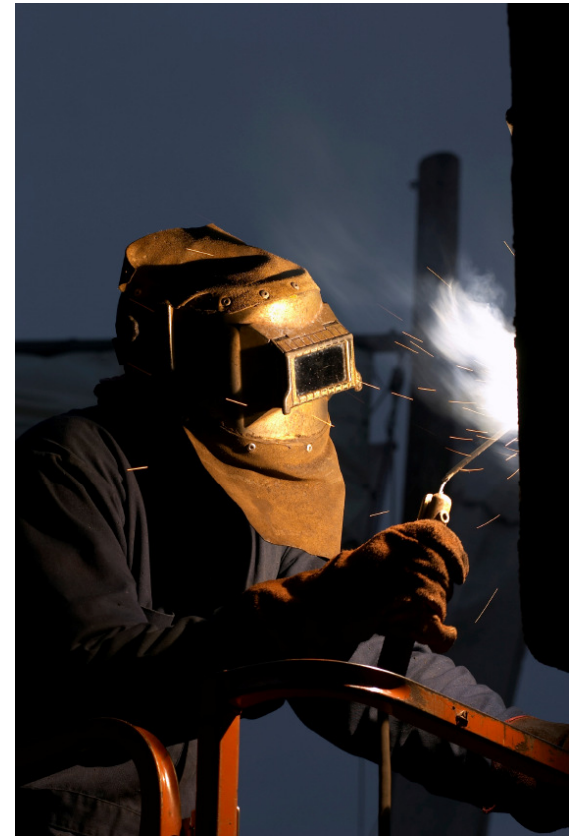
Lock Out/Tag Out

- All contractors performing lock out/tag out must have a written LOTO program which includes training requirements and type of locks to be used. LOTO program and training documentation must be provided to EHS.
- Contractors must provide their own locks, tags, labels and LOTO procedures if not provided by Raytheon.
- Tags must identify name, date, equipment locked out and the reason for lock out.
- All applicable procedures must be reviewed with Raytheon Project Manager or EHS prior to startup.



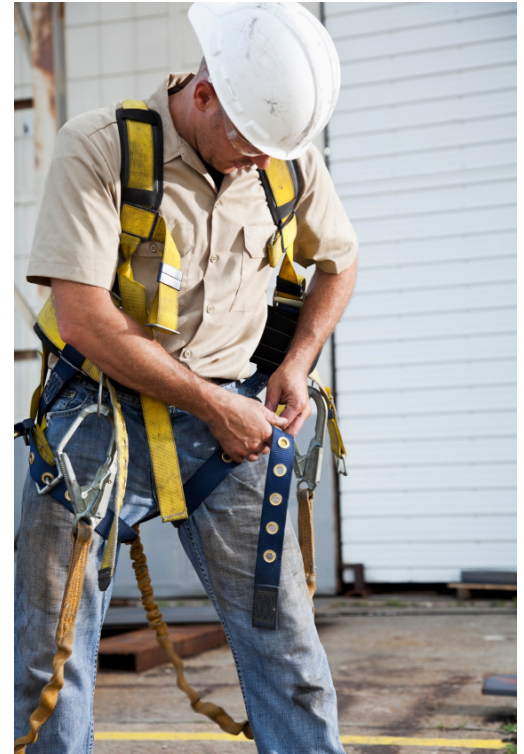
Hot Work/Open Flame Permits

- All work involving open flames and spark generation requires a hot work permit (e.g., welding, cutting, brazing, burning, grinding and soldering operations).
- Permits are issued by Security, Facilities or EHS. Check local site requirements.
- Suitable and serviceable fire extinguishers must be available at the location of the work and properly placed on wall, carts or stanchions. Contractors must have fire extinguisher training.
- There must be a 60-minute minimum fire watch after the work is completed.
- Hot work is prohibited in areas where there are combustibles or flammables unless additional precautions have been taken.



Fall Protection

- Fall protection systems are required when working within 6 feet of an unprotected roof ledge or when working on unprotected platforms 4 feet above grade.
- Only full body harnesses are allowed for use on Raytheon property. Non-engineered systems must provide a 5,000-lb anchorage point for each employee. Engineered systems can be designed to twice the anticipated load per person.
- Roof work requires Raytheon EHS preapproval.
- Contractors must meet applicable fall protection regulations – Raytheon has unique requirements that must be followed.
- Fall protection is **NOT** required when working inside the confines of ladders, rolling ladders or properly erected scaffolding with guard rails.



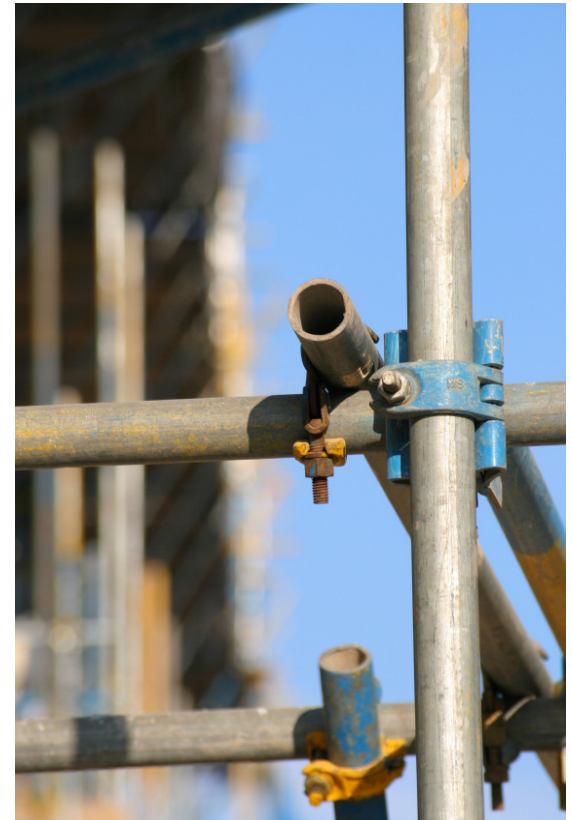
Mobile Lifts and Cranes

- All mobile lifts, including forklifts, man lifts and scissor lifts must be in good working condition with inspection certificates up to date when required.
- Only trained and authorized personnel can operate these vehicles. Training documentation must be maintained on site or readily available to Raytheon. Fall protection systems are to be used as required.
- Contractors must formally inspect aerial lifts using a checklist to document inspection prior to use on each shift.
- Contractors using scissor lifts and man lifts must implement procedures, barricades, signs, spotters, etc., to protect employees working below from falling objects.
- All mobile crane lifts on site must be coordinated through your Raytheon Project Manager and EHS. Check site requirements on mobile crane lifts.



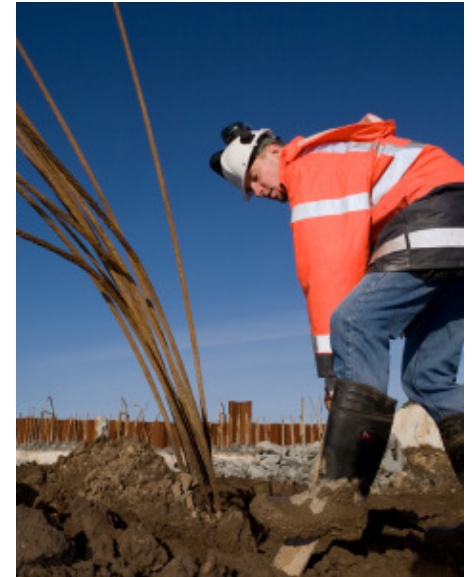
Ladders and Scaffolding

- Contractors must provide their own ladders for the type of work being performed and store them properly when not in use.
- Ladders must be placed in a position in which boot footholds have secure footing and contact the ground evenly.
- Standing on the top two rungs of a ladder is prohibited. Always use the right size ladder.
- Nonconductive ladders will be used when working near electrical energy sources.
- All scaffolding must be constructed in accordance with OSHA requirements. Contractors must be licensed to erect and dismantle scaffolding. Scaffolding taller than 4 feet must be provided with standard guardrails and toe boards (Raytheon requirement).



Excavations

- All excavations 5 feet or more in depth that are to be entered by workers must be protected by a system of shoring, sloping, benching or an alternate method that meets the requirements of OSHA Construction standards.
- Appropriate means of entry and egress must be provided at all open trenches and pits for employee safe access. Entry and egress ladders must be positioned and secured properly in accordance with OSHA regulations.
- Exposed rebar must be protected with a safety cap.
- All excavations must have appropriate barricades and warnings to alert employees to the danger in the immediate area and physically stop them from coming too near to the opening.
- Shoring, sloping and benching must be approved and designed by a contractor-competent person meeting all OSHA training requirements.



Summary: High Hazard Tasks Requiring Authorization Permits/Plans

Task	Permit/Authorization Form	Plan
Mobile Crane Lifts	Check local site requirements	
Elevated work performed directly above an occupied area where people or space hardware may be present	Check local site requirements	
Hot work	Hot Work Permit – check with local Facilities or EHS for permit	
Energized Work	Energized Electrical Work Permit – contractor to provide their own	
Entry into Permit Required Confined Spaces	Contractors provide their own entry permit	
Suspended scaffolds and scaffolds greater than 7.5 feet		Scaffolding Plan submitted by licensed contractor
Excavations		Excavation plan and drawings. Shoring, slpping etc. Must be designed by the contractor’s competent person
Use of Chemicals	Check local site requirements	
Fall Protection		Contractor must submit a Fall Protection Plan to EHS for review

Personal Protective Equipment

- Contractors must wear appropriate PPE for the hazards of the job.
- Steel-toed shoes or boots must be worn on construction sites.
- No sandals or flip flops on property and no elevated heels on the production floor.
- Safety glasses must be worn in all construction areas and Raytheon work areas that require them, and for tasks that present potential eye hazards.
- Some Raytheon sites may require high-visibility vests or clothing. Check local site requirements.
- Raytheon does not assign, provide or approve PPE for non-Raytheon supervised contractors.
- Contractors must provide medical surveillance for employees depending on PPE used.
- Contractors must meet **all** applicable OSHA regulations regarding PPE.



Emergency Procedures

- First Aid and Medical Emergencies
 - Except when agreed upon in advance by contract, contractors are responsible for providing first aid, medical treatment and transportation of their injured employees to the contractor's designated medical facility.
 - In the event of emergency services, contractors are responsible for ensuring that their employees understand the requirement to immediately contact Raytheon's on-site emergency response number for assistance.
- Contractors shall provide at least one first-aid kit in a weatherproof container with all the necessary supplies for workers performing work on a construction project. The minimum first-aid supplies shall be determined by an employer-authorized, licensed physician in accordance with OSHA.
 - Contractors must also provide an inventory sheet on the first-aid kit and a sign-in roster for those receiving first-aid treatment on site



Emergency Procedures (cont.)

- Accident/Incident Reporting
 - Contractors are required to report immediately, or as soon as practicable, any and all accidents involving their employees and/or subcontractors to the responsible Raytheon Project Manager (RPM) and EHS.
 - Contractors are responsible for reporting all OSHA reportable injuries to the local OSHA office.
- Scene Preservation
 - For contractor incidents that are likely to result in an OSHA reportable injury, the contractor and RPM must make every effort to preserve the integrity of the incident scene until otherwise notified by Raytheon.
- Incident Investigations
 - The general contractor shall take the lead to investigate an accident or incident that involves a subcontractor.
 - Contractors must perform an accident/incident investigation with root cause and corrective/preventive actions within 48 hours of the event's occurrence. A report must be provided to the RPM and EHS department.

Additional Information in Handbook

- Hazardous Materials and Waste
- Environmental Requirements
- Compressed Air and Gas Cylinders
- Overhead Work
- Cutting, Brazing and Welding
- SAS Corrective Action Policy
- Occupied Areas
- Many More!



Site EHS Managers

- Ed Murcia – CA, El Segundo 310.607.7907
- Augustine Ortiz – CA, Goleta 805.331.3436
- Craig Pethe – FL, Largo and St. Petersburg 727.302.4793
- Sandra Merritt – IN, Fort Wayne 260.402.1677
- Gary Chilcoat – MD, Aberdeen 443-558-5407
- Raina Cofer – MS, Forest 601.469.5764
- Jerry Philippon – TX, Expressway 972.344.4468
- Steve Gray – TX, McKinney 972.952.4468
- Alan Larsen – TX, Plano Parkway 972.952.2030



Thank You

- We want your experience working with Raytheon to be a safe one, just as it is for our own employees.
- Please ask your supervisor, RPM or EHS site contact if you have any questions.
- Thank you for reviewing this safety briefing.
- The online assessment following this presentation is required.



Online Assessment

Please select the link below to begin the online Contractor Safety and Health Awareness Assessment:

<http://raytheon.cvent.com/d/dcqy7h>