



# Service Provider Manual

Not subject to U.S. Export Administration Regulations (EAR), (15 C.F.R. Parts 730-774) or U.S. International Traffic in Arms Regulations (ITAR), (22 C.F.R. Parts 120-130).

Prior to the start of work, please write in the correct emergency numbers you are given by your company representative and the Boeing OAR in the spaces provided below.

## Emergencies

**Emergency Call Number:**

\_\_\_\_\_

**In case of emergency - Provide the following information:**

- a. Your name and your employer's name.
- b. Phone number from which you are calling.
- c. Location of the incident:  
City, street address (if known) Building number and floor level Column number  
Nearest door number
- d. Nature of emergency.

**Don't hang up until told to do so!**

**You are a vital link in the emergency and must relay changes in the state of the emergency.**

## Boeing OAR Notification

Notify your Boeing Onsite Activity Representative (OAR) of emergency and non-emergency incidents. Additional reporting may be required.

**Boeing OAR Call Number:**

\_\_\_\_\_

**Other Call Numbers:**

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# TABLE OF CONTENTS

## Contents

INTRODUCTION .....	5
1.0 GENERAL INFORMATION .....	6
1.1 General Rules .....	6
1.2 General Rules .....	7
1.3 Vehicles and Mobile Equipment .....	7
1.4 Required Postings .....	7
1.5 Incident/Accident Reporting, Including Near Misses .....	8
2.0 EMERGENCY PROCEDURES .....	9
2.1 Evacuations .....	9
2.2 Emergency Notification .....	9
3.0 FIRE PREVENTION .....	11
3.1 Fire Extinguishers .....	11
3.2 General Housekeeping .....	11
3.3 Equipment Requirements .....	11
3.4 Flammable Liquids .....	12
3.5 Spray Painting, Flammable Resins, Chemicals .....	12
3.6 Storage of Combustible Materials .....	12
3.7 Welding/Cutting Activities .....	12
3.8 Fire Protection Systems .....	13
3.9 Temporary Structures and Enclosures .....	14
3.10 Roofing .....	14
3.11 Emergency Egress .....	14
4.0 SAFETY REQUIREMENTS .....	15
4.1 Occupational Health and Safety Management System(OH&SMS) .....	15
4.2 OH&SMS Awareness: .....	15
4.3 OH&SMS Policy: .....	15
4.4 Project-Specific Safety Plans .....	15
4.5 Personal Protective Equipment .....	16
4.6 Hazard Communication/Safety Data Sheets .....	16
4.7 Electrical Safety .....	16
4.8 Control of Hazardous Energy .....	17
4.9 Trenching and Excavations .....	18
4.10 Warning Signs and Barricades .....	18
4.11 Confined Space Entry .....	19
4.12 Fall-Protection Program .....	19
4.13 Ladders and Scaffolding .....	20
4.14 Work Permits .....	21
4.15 Foreign Object Debris / Foreign Object Damage .....	21
4.16 Crane Operations .....	21

4.17	Utility Shutdowns.....	22
4.18	Joint Occupancy Issues (Occupied Work Areas).....	22
4.19	Training .....	23
4.20	Radiation Safety.....	23
4.21	Traffic Control.....	23
4.22	Explosives (Class 1) and Explosive Containing Devices (ECDs) .....	24
5.0	ENVIRONMENTAL.....	25
5.1	ISO 14001 Environmental Management System (EMS) .....	25
5.2	Hazardous Materials.....	25
5.3	Waste Handling and Disposal.....	25
5.4	Suspect Materials .....	26
5.5	Air Quality .....	27
5.6	Water Quality .....	28
6.0	SITE-SPECIFIC REQUIREMENTS.....	31
6.1	Everett Specific General Requirements.....	31
6.2	Area Access.....	31
6.3	Emergency Shelter-In-Place Locations .....	32
6.4	Badging.....	32
6.5	Vehicles and Mobile Equipment .....	32
6.6	Pedestrian Safety Requirements .....	35
6.7	Personal Protective Equipment .....	36
6.8	Injury, Property Damage and Near Miss Reporting.....	36
6.9	General Housekeeping.....	37
6.10	Flammable Liquids .....	37
6.11	Spray Painting, Flammable Resins, Chemical .....	38
6.12	Welding/Cutting Activities.....	38
6.13	Fire Protection Systems .....	39
6.14	Roofing.....	39
6.15	Radio Frequency.....	40
6.16	Project Specific Environment, Health and Safety (EHS) Plans.....	40
6.17	Hazard Communication/Safety Data Sheets.....	40
6.18	Control of Hazardous Energy .....	41
6.19	Infrastructure Support Shutdowns.....	41
6.20	Aircraft Lockout, Tag, Tryout.....	43
6.21	Trenching and Excavations.....	44
6.22	Pre-Dig Process .....	44
6.23	Confined Space Entry .....	45
6.24	Fall Protection .....	45
6.25	Equipment Installation Requirements .....	46
6.26	Disturbing Painted Material .....	47
6.27	Robotic Work.....	48

6.28	Working around Boeing Automated Guided Vehicles (AGV) .....	48
6.29	Building, Maintaining, and Servicing Automated Guided Vehicles .....	49
6.30	Crane Operations .....	49
6.31	Required Postings .....	52
6.32	Close Proximity Work Plans .....	52
6.33	Low-Powered Visible Lasers .....	53
6.34	Hazardous Materials .....	53
6.35	Hazardous Waste and Solid Waste Handling and Disposal .....	53
6.36	Suspect Materials .....	55
6.37	Air Quality .....	56
6.38	Water Quality Written Plan Requirements .....	59
	GENERAL INFORMATION .....	60
	REFERENCES .....	67
	APPENDIX A .....	72
	APPENDIX B .....	73
	APPENDIX C .....	75
	APPENDIX D .....	76
	APPENDIX E .....	76
	APPENDIX F .....	78

## INTRODUCTION

Boeing is committed to high standards for safety, health, fire prevention, security, and the environment. As a Service Provider to Boeing, you are expected to maintain the same high standards.

You will be interfacing with Boeing operations and working closely with personnel from various Boeing organizations and related Service Providers. Therefore, it is important that you, your employees, and your subcontractors are familiar with Boeing safety, health, fire prevention, security, and environmental requirements.

As a Service Provider, you are responsible for ensuring that your employees and all your sub-contractors follow safe work practices and comply with all federal, state, local, and Boeing contract requirements. This booklet is intended to help you comply with Boeing safety, health, fire, security, and environmental requirements. Nothing herein shall relieve you of your responsibility to comply with federal, state, and local laws, codes, rules, regulations, and Boeing-contract requirements.

Your Boeing OAR is your primary point of contact. Some work activities you are involved in may require additional coordination with Boeing Environment, Health and Safety (EHS), Fire, Security, and other entities as appropriate. The Boeing OAR will facilitate this coordination.

Throughout this manual, activities requiring additional coordination are identified with the statement “Additional coordination is required.”

Please read this booklet, and if you do not fully understand the information provided in all sections or if there are site-specific issues, discuss your questions with your supervisor or your Boeing OAR.

Watch the Boeing Onsite Service Provider Orientation video on the Boeing Supplier Portal: <http://www.boeingsuppliers.com/environmentLinks.html> (accessible from any smart device)

Ensure that each of your personnel and subcontractors that will be performing work for Boeing are aware of the requirements of this manual and watches the orientation video <http://www.boeingsuppliers.com/environmentLinks.html>.

Requirements of some locations or activities may differ from those in this manual. Consult with your Boeing OAR for questions and additional requirements that may apply to your contract. Service Provider employees violating Boeing requirements are subject to removal from the site.

Your cooperation is expected and appreciated.

## 1.0 GENERAL INFORMATION

### 1.1 General Rules

- a. All Service Providers are to stay within assigned work areas. Wandering in non-assigned work areas is strictly prohibited.
- b. Service Providers shall comply with all posted safety requirements, including but not limited to rules concerning: hearing protection, eye protection, confined space entry, access barriers, parking and driving requirements.
- c. Use of offensive language and display of offensive materials is not permitted.
- d. Horseplay, theft, fighting, harassment, gambling, and possession or use of alcohol or controlled substances is strictly prohibited.
- e. Firearms or other weapons, and ammunition are strictly prohibited. Other weapons include any instrument or device declared to be a prohibited weapon by Boeing Security & Fire Protection, such as knives (blade over 3 inches), swords, bows, arrows and similar objects. Mock or non-functional weapons are also strictly prohibited. Contact your Boeing OAR if there is a business reason for blades over 3 inches in length. Additional coordination is required.
- f. Use of Boeing Assets such as equipment, machinery, tools, utilities, etc., is prohibited without prior contractual agreement. Additional coordination is required. The use of Boeing assets by Service Providers is generally forbidden unless there is a specific business need such as unique tooling required for a project or additional risk incurred in operating portable equipment such as cranes.
- g. Use of a photographic or camera-enabled device must be properly authorized using a Camera Permit. Additional coordination is required.
- h. Radio frequency devices, such as portable radios, are controlled on Boeing property and must be pre-approved before use. Additional coordination is required.
- i. Tobacco use of any kind is prohibited on Boeing property, including Boeing-controlled, owned or leased grounds, parking lots, private vehicles and buildings, in Boeing-controlled, owned or leased vehicles, or in pre-delivered products. This prohibition includes the use of any product that gives the appearance of using tobacco (examples: e-cigarettes, herbal chew).
- j. Animals are not to be brought onto Boeing property. Contact your Boeing OAR regarding the use of guide dogs or other human service animals. Additional coordination is required.
- k. Phone or electronic device use is not permitted while walking or bicycling. Stop movement when safe to use the electronic device. When driving, must use the electronic device in hands-free mode. This requirement does not apply to work activities that require the use of an electronic device during movement (e.g., crane and two team communications). Additional local rules may be more stringent.

- i. Reflective Apparel meeting ANSI/ISEA Class II is required onflight line/ramp areas.

## 1.2 General Rules

- a. You must obtain an identification badge and visibly display and wear the badge while on Boeing property.
- b. Lending or borrowing identification badges is strictly prohibited.

## 1.3 Vehicles and Mobile Equipment

- a. Personal and Service Provider vehicles and industrial mobile equipment used inside secured Boeing property are allowed with special permission only and may require a Boeing-issued parking pass.
- b. Service Provider vehicles, personal vehicles, and industrial mobile equipment and accessories shall be maintained in a safe operating condition.
- c. Service Provider vehicles, equipment, or supplies shall not block entrance ramps, truck doors, plant access aisles, emergency routes (including lanes or zones), or parking specified for Boeing equipment, facilities, or plant personnel without prior approval from the Boeing OAR. Additional coordination is required.
- d. Forklifts must be isolated from pedestrians with barricades or spotters when transporting between areas. Additional coordination is required.
- e. Posted speed limit and traffic signs shall be followed at all times while on Boeing property.
- f. Vehicles must yield right-of-way to:
  - Pedestrians
  - Moving aircraft
  - Emergency vehicles
- g. Service Provider vehicles are not permitted on flight line ramps without prior approval. Additional coordination is required.
- h. Seat belts, when available, shall be worn at all times.
- i. Personnel shall not be transported in the beds of trucks.
- j. Do not idle vehicles unnecessarily.
- k. Do not idle vehicles near building air intakes or building entrances.
- l. Operation of diesel, and gasoline-powered equipment is restricted in Boeing buildings. This restriction does not apply to transient vehicles or short-term loading and unloading inside occupied buildings. If diesel or gasoline powered equipment is to remain running inside a Boeing building, then the equipment exhaust shall be piped or vented to the outside of the building or use a Boeing-approved filtering system. Additional coordination is required.

## 1.4 Required Postings

The Service Provider is responsible for ensuring that all federal, state, and local agency permits and posters are placed at the entrance to the job site, or at a location as directed by the Boeing OAR. Additional coordination is required.

## **1.5 Incident/Accident Reporting, Including Near Misses**

- a. Report any incidents that creates a risk to Boeing operations (people product, property, assets) to the Boeing OAR. Additional coordination is required.
- b. An “Incident” is any unplanned event that results in or has the “potential to result” (i.e., near miss) in occupational injury/illness or environmental impact.

## 2.0 EMERGENCY PROCEDURES

### 2.1 Evacuations

- a. All Service Providers shall participate in scheduled evacuation exercises or drills.
- b. In the event of a building or site evacuation, immediately evacuate through the nearest safe exit and report to your designated assembly point. If you do not know your assembly point, check with your immediate supervisor or Boeing OAR. In all cases, instruction and directions given by your supervisor, security, or other emergency response personnel shall be followed.
- c. In the event of a building or site incident in which you are asked to “shelter in place,” follow the posted directions, or direction from the designated emergency response personnel, to the closest designated “shelter in place” location.
- d. Do not leave the assembly point or shelter in place location until authorized to do so by Boeing Security & Fire Protection or local emergency response agencies.
- e. Ensure there is an effective means of communication with all of your employees and subcontractors working at the site.

### 2.2 Emergency Notification

Immediately report all emergency and significant incident situations to the Boeing emergency number listed on page i of this booklet and your Boeing OAR.

You must know the building number, grid/column line number, floor level, and door number.

Remember: do not hang up until the dispatcher tells you to do so. You are a vital link in the emergency response and must relay changes in the state of the emergency.

Emergency and significant incident are defined as follows:

- a. Emergency: Any event requiring emergency personnel and equipment, including but not limited to:
  - Visible flame, smoke, noxious odors or noise that may attract the attention of the surrounding community or that results in the evacuation of personnel.
  - An event that places human life, the environment, or property at risk.
  - Environmental spills or releases.
- b. Significant Incident: Any event involving one or more of the following.
  - Death, serious injury, or exposure of an individual to hazardous substances that requires attention beyond first aid, hospitalization, or results in permanent impairment.

Property damage to Boeing or Boeing customer assets.

Damage or the potential for damage to a Boeing product or related production component or part.

## 3.0 FIRE PREVENTION

### 3.1 Fire Extinguishers

- a. As required and approved by the Boeing Fire Department or a Boeing Security and Fire representative, all Service Providers shall provide their own Factory Mutual (FM) Approved or Underwriters Laboratory (UL) Listed portable fire extinguishers in good working order. Fire extinguishers approved by the Boeing Fire Department or a Security and Fire representative for the specific hazards of the location must be readily accessible in the immediate area.
- b. All fire extinguisher activations must be reported immediately and treated as an emergency.

### 3.2 General Housekeeping

- a. Boeing trash receptacles shall not be used for construction debris.
- b. All construction trash and debris receptacles shall be located away from any Boeing building or structure. If construction chutes are required, the location and design of the chute shall be approved by the Boeing Fire Department or a Boeing Security and Fire representative. Coordinate with the Boeing OAR. Additional coordination is required.
- c. All work areas shall be maintained in a clean state. Clean up and remove trash, scrap, excess materials, and other debris. This shall be done at least daily and whenever the accumulation constitutes a fire hazard.
- d. Burning of trash is prohibited.
- e. Wood, sawdust, or shavings shall not be used as absorbents for spilled flammable or combustible liquids or petroleum lubricants.

### 3.3 Equipment Requirements

- a. All equipment must be operated in accordance with the manufacturer's instruction manual.
- b. All powered equipment shall be refueled outdoors, away from storm drains and clear of structures, with engines shut off. Spill containment must be provided for equipment fueling. Spill clean-up kits must be available at refueling locations.
- c. Gasoline, liquid propane gas, or propane-powered equipment may be allowed on building roofs. Coordinate with the Boeing OAR. Additional coordination is required.
- d. Electrical equipment used in areas where flammable atmospheres (vapors, dusts, or mists) may exist shall have appropriate National Fire Protection Association (NFPA) class and division ratings for explosion proofing.
- e. Air monitoring (e.g., for NO, NO<sub>2</sub>, CO, SO<sub>2</sub>) shall be conducted, as necessary, to check for hazardous emissions from powered equipment operating within buildings, excavations, or enclosed structures. Monitoring results shall be

available for review if requested by Boeing.

### **3.4 Flammable Liquids**

- a. The Service Provider shall comply with all safety regulations and codes pertaining to labeling, handling, and storage of flammable and combustible products.
- b. Flammable liquids shall not be used or stored inside Boeing buildings unless contained in an FM Approved, UL Listed or Boeing-approved container and only in quantities needed to accomplish the immediate tasks.
- c. Effective methods of spill retention, containment, and cleanup of materials are required.
- d. Containers and dispensing apparatus shall be electrically bonded and grounded when dispensing or transferring flammable liquids, except for portable containers less than five gallons in capacity.
- e. Portable flammable liquid containers five gallons or greater in size must be of metal construction.
- f. Service Provider flammable liquid storage locations must be approved through the Boeing OAR. Additional coordination is required.

### **3.5 Spray Painting, Flammable Resins, Chemicals**

- a. Inspection and written approval are required before painting, including spray painting or cleaning with flammable materials. Additional coordination is required.
- b. All electrical equipment shall be rated for Class I, Division 1 locations where flammable or combustible liquids are sprayed. Spray operations shall be conducted in well ventilated, unoccupied areas. Additional coordination is required.
- c. Only explosion-rated or intrinsically safe electrical equipment, including forklift trucks that are, for example, EE or EX rated, shall be used in hazardous locations, such as flight hangars, paint booths, and tank lines. Additional coordination is required.
- d. A minimum distance of 20 feet from ignition sources is required.

### **3.6 Storage of Combustible Materials**

Contact the OAR to obtain approval for the storage of combustible materials. Additional coordination is required.

### **3.7 Welding/Cutting Activities**

- a. A Boeing hot-work permit is required before performing all open-flame, welding, or spark-producing work.
- b. Coordinate with the Boeing OAR regarding hot work permit requirements at your location.

- c. Fire-retardant protective materials (such as fire blankets) shall be used to contain sparks and prevent them from falling against walls, on wooden floors, through flooring, on combustibles or valuable materials and equipment, or into hidden spaces.
- d. Flash shields, fire-resistive curtains, or other suitable shields shall be placed around the hot work area to protect any adjacent personnel from sparks and arc flash.
- e. All flammable materials shall be a minimum of 35 feet away from hot work areas.
- f. Arc welding machines with the potential to interfere with implanted medical devices shall be posted with an appropriate hazard warning.
- g. Local ventilation is required for welding operations that will generate welding fumes inside the building. Coordinate with Boeing Onsite Activities Representative. Additional coordination is required.
- h. Service Providers shall provide their own FM Approved or UL Listed portable fire extinguishers. Fire extinguishers approved for the specific hazards of the location must be readily accessible and fully charged.
- i. The Service Provider shall assign a fire watch for any open flame or spark producing work. The fire watch shall be trained in the use of portable fire-fighting equipment. The fire watch shall be solely dedicated to the assigned activity and remain on standby a minimum of 30 minutes following the end of any and all open-flame activities.
- j. The assigned fire watch shall notify the Boeing Fire Department, or other agency that issued the hot work permit, upon completion of work. Coordinate with the Boeing OAR. Additional coordination is required.
- k. Hot-work permits shall be removed and destroyed upon completion of work or when they expire.

### **3.8 Fire Protection Systems**

- a. Notify the Boeing OAR 24 hours in advance of all proposed requests for fire protection system closure or impairments. Additional coordination is required.
- b. Boeing requests a 14-day notice for any non-emergency fire system impairment event, but realizes situations may arise where this is not always possible. However, under no circumstance shall the notice for non-emergency fire system impairment shut off events be less than 7 days. Coordinate with the Boeing OAR. Additional coordination is required.
- c. Before using any fire hydrant or building standpipe system as a water supply, the Service Provider must obtain approval through the Boeing OAR. Additional coordination is required.

- d. The Service Provider shall verify with the Boeing OAR that all fire-extinguishing protection systems (sprinklers) are operational in an area of welding and open- flame cutting. Additional coordination is required.

### **3.9 Temporary Structures and Enclosures**

- a. A separation of 25 feet shall be maintained between temporary buildings and storage areas and other buildings or areas. All temporary installations must have prior approval by the Boeing OAR. Temporary walls or partitions shall be noncombustible. Additional coordination is required.
- b. Plastic or Visqueen film shall be fire resistive, UL Listed or FM Approved, and meet the requirements of NFPA #701, “Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.”

### **3.10 Roofing**

The Boeing OAR shall be notified in advance of all roof work involving: welding; open flame equipment; spark- producing or hot work, or use of a heat gun, coatings, solvents or chemicals, before start of the work. Additional coordination is required.

### **3.11 Emergency Egress**

Service Providers shall not block or obstruct emergency exits or other means of egress at any time.

## 4.0 SAFETY REQUIREMENTS

### 4.1 Occupational Health and Safety Management System(OH&SMS)

- a. Service Providers at Boeing facilities must ensure that their employees are made aware of the Boeing Safety and Health Policy.
- b. The following is the Boeing Safety and Health Policy. Boeing and its employees are committed to use the Occupational Health and Safety (OH&S) management system to:
  - c. Provide a framework for establishing OH&S objectives and plans to achieve them.
  - d. Conduct operations in compliance with applicable laws, regulations, and Boeing policies and procedures.
  - e. Provide safe and healthy working conditions for the prevention of work-related injury and ill health appropriate to the purpose, size, and context of Boeing and to the specific nature of OH&S risks and opportunities.
  - f. Continually reduce occupational injuries and illnesses by assessing, evaluating, communicating, and controlling or eliminating OH&S risks.
  - g. Continually improve our OH&S management system.
  - h. Work together with our stakeholders on activities that promote OH&S.
  - i. Commit to consultation and participation of workers, and, where they exist, workers' representatives.
  - j. Use the change register process in Enablon for the review of facilities, equipment, and tooling changes to ensure compliance and reduce risk when facilities, equipment, or tooling is changed (i.e., new, modified, relocated, repurposed, removed).

**4.2 OH&SMS Awareness:** Service Provider personnel must have knowledge of how their actions may impact worker safety and health and the consequences of not following proper procedures and requirements.

**4.3 OH&SMS Policy:** Service Providers at Boeing facilities must ensure that their employees are made aware of the Boeing Safety and Health Policy. For more information on the Boeing OH&SMS program contact your Boeing OAR.

### 4.4 Project-Specific Safety Plans

- a. The Service Provider shall prepare a written, project-specific safety plan with the details in the plan applicable for work being performed, and submit the plan to the Boeing OAR, upon request, for Boeing review. Project-specific safety plans shall be available and communicated at the location where the work is being performed.
- b. The Service Provider shall submit to Boeing, on request, a copy of its company safety program.

- c. The Service Provider shall provide written notification to the Boeing OAR of the name and title of the Service Provider's on-site safety representative for the project.
- d. Contact your Boeing OAR for additional assistance. Additional coordination is required.

#### **4.5 Personal Protective Equipment**

- a. The Service Provider shall provide their employees all required personal protective equipment (PPE) and ensure that it is used. Boeing does not provide PPE to Service Provider personnel.
- b. All PPE must conform to applicable regulatory requirements and appropriate industry standards.
- c. Examples of PPE are:
  - Industrial safety glasses with side shields
  - Face protection
  - Body protection
  - Ear plugs and muffs
  - Hard hats
  - Gloves and hand protection
  - Full-body safety harness and lanyards

#### **4.6 Hazard Communication/Safety Data Sheets**

- a. Boeing shall provide, on request, the safety data sheet (SDS) for any hazardous material under Boeing control within the assigned work area.
- b. Before any hazardous material arrives on site, the Service Provider shall furnish to the Boeing OAR the following information on each hazardous material to be used:
  - 1. The identity of each hazardous material;
  - 2. An SDS for each hazardous material; and
  - 3. The quantity of each hazardous material to be used and/or stored on site.
- c. All hazardous material containers shall be properly identified and labeled as to their contents. Hazardous material container labels must include:
  - 1. The identity of the hazardous material;
  - 2. The manufacturer of the hazardous material; and
  - 3. Appropriate hazard warnings
- d. The Service Provider shall bring to the job site only the amount of hazardous materials necessary for the project.

#### **4.7 Electrical Safety**

- a. All electrical incidents and near misses shall be reported immediately to the Boeing OAR.
- b. Equipment used by Service Providers must be approved by a nationally

recognized testing laboratory.

- c. The Service Provider shall supply ground fault circuit interrupters for all temporary electrical wiring cords and portable equipment and tools.
- d. The Service Provider must comply with current OSHA and NFPA 70E standards for safe work on or near energized electrical systems. Work on or near energized exposed movable conductors (e.g., power lines) or energized equipment with exposed conductors operating at 50 volts or greater, shall only be done when approved in writing by the Boeing OAR. Additional coordination is required.
- e. Portable electrical equipment (e.g., extension cords, drills, etc.) shall be maintained in a safe working condition.
- f. Equipment, carts or other items shall not be stored in front of electrical panels or substations.
- g. Combustible materials shall not be stored in any substation or electrical room.
- h. After completion of work, substations and electrical rooms shall be secured to prevent unauthorized access.
- i. Do not daisy chain extension cords. Extension cords must be plugged directly into an approved receptacle.
- j. Temporary power cords must be protected from damage.

#### **4.8 Control of Hazardous Energy**

Prior to shutdown of any Boeing equipment, building system, or utility, the Service Provider shall notify the Boeing OAR. Additional coordination is required.

- a. All equipment that could present a hazard from inadvertent activation or release of energy during maintenance or servicing shall have the energy supply locked out and tagged except where the energy supply is needed for testing, troubleshooting, inspecting, or servicing equipment.
- b. Before working on any energized system, the Service Provider shall take the following steps in accordance with the Service Provider's company procedures:
  - 1. Refer to machine-specific instructions on controlling Multiple Energy Sources.
  - 2. Isolate the energy sources and release all energy or potential energy (e.g., electrical [stored], gravity, kinetic, pressure, thermal, pneumatic, and hydraulic).
  - 3. Install your company physical lockout device and lockout tag for each affected employee. The tag must include:
    - i. Employee name, company name, date, and phone number (or pager number).
    - ii. Off-shift contact and phone number (requires someone to be

- available 24 hours per day).
- iii. Boeing OAR (add to blank space, if no specific field).
- iv. Before proceeding with work, test or try out the system to ensure zero energy state.
- c. For joint occupancy jobs that require lock out/tag out, the Service Provider shall coordinate its hazardous energy plan with the Boeing OAR. Additional coordination is required.

#### **4.9 Trenching and Excavations**

- a. Notify and obtain approval from the Boeing OAR before excavating or opening any trench. Additional coordination is required.
- b. Before starting work, for both indoor and outdoor excavations, a qualified service shall be used to locate the approximate location of subsurface installations such as sewer, telephone, fuel, electric, water lines, or any subsurface installations that may be encountered during excavation work. While the excavation is open, subsurface installations shall be protected, supported, or removed as necessary to safeguard personnel.
- c. Hand-digging shall be required where there is any risk of making contact with underground utilities or structures.
- d. The Service Provider shall physically barricade all excavations, trenches, and operating excavation equipment.
- e. Daily inspections of excavations, adjacent areas, and protective systems shall be made by a competent person for evidence of hazardous conditions. Inspections shall also be made after every rain storm or other hazard-increasing occurrence. If a hazardous condition is observed, personnel shall be removed from the hazard area until the hazardous condition is corrected.
- f. The Service Provider's competent person shall assess the soil condition to determine the method of shoring or sloping required for excavation.
- g. All excavations and trenches 5 feet or more in depth shall be benched, shored, sloped, or otherwise protected to ensure that collapse does not occur.
- h. Excavated soils must be placed not less than two feet away from the excavation.
- i. Place excavated soils on the up-slope side of the trench whenever possible to capture sediment runoff in the event of rain.

#### **4.10 Warning Signs and Barricades**

- a. The Service Provider shall supply appropriate signs, barricades, flashing light barricades, ground attendants, and flagging, as required, to keep unauthorized personnel out of potentially hazardous work areas. Additional coordination is required.
- b. Highly visible physical barriers such as warning tape shall be used by

Service Providers to identify their work area and to prevent Boeing personnel and others not directly involved with the project from entering.

- c. Substantial barricades, such as chain link fencing, standard guardrails, etc., are required around excavations, holes, or openings in floors, roof areas, edges of roofs, and elevated platforms. In addition, barricades are required around overheadwork and wherever necessary to warn or protect all personnel.

#### **4.11 Confined Space Entry**

- a. All confined-space incidents or near misses shall be reported immediately to the Boeing OAR.
- b. Service Providers shall request from the Boeing OAR information on confined space hazards identified and precautions/procedures (if any) that Boeing has implemented for protection of Boeing employees working in or near existing confined space locations.
- c. The Service Provider shall have and follow its own written confined space entry program, including an entry permit system, monitoring equipment, ventilation, retrieval system, and observation personnel, except as provided for in Section 4.11.d.
- d. For jointly occupied confined spaces, the Service Provider shall coordinate its confined-space entry plan with the Boeing OAR. Additional coordination is required.
- e. Service Providers must independently evaluate hazards presented by work in or near Permit Required Confined Spaces (PRCSs) and implement precautions and hazard controls necessary for safe entry and work in PRCSs. Prior to entry, Service Provider must contact the identified rescue service provider and ensure its availability.
- f. Rescue service contact information must be readily available to PRCS personnel. Additional coordination is required.
- g. The Service Provider shall have its written confined space entry program available at the work site and post the confined-space entry permit at the point of entry.
- h. Upon completion of PRCS entry operations, provide a copy of the closed permit(s) to the Boeing OAR.
- i. The Service Provider will debrief the Boeing OAR after the conclusion of PRCS entry operations. This debrief shall include:
  - information regarding the confined space program followed and
  - any hazards confronted or created in confined spaces during entry operations.

#### **4.12 Fall-Protection Program**

- a. A fall protection work plan is required when fall protection systems including, but not limited to, anchorage points, staticlines, lanyards, and full body harnesses must be utilized because fall hazards cannot be eliminated through the use of passive systems such as guardrails.
- b. All fall-protection equipment and devices shall meet American National Standards Institute (ANSI) Z359 standards.
- c. The Service Provider shall provide all necessary fall protection equipment to its employees.
- d. The Service Provider shall inspect and maintain its fall protection equipment and shall promptly remove from the worksite any fall protection equipment found to be defective.
- e. Before considering the use of material handling equipment to lift personnel, the Service Provider shall consult with the Boeing OAR. Additional coordination is required.
- f. Service Providers must have measures in place to protect personnel in the area of elevated work from hazards resulting from dropped tools, work materials, etc. This may include the use of barricades, spotters, and nets. The inclusion of tool and parts control / inventory provisions in the project specific safety plan may be required. Contact the Boeing OAR for more information. Additional coordination is required.
- g. When Service Provider personnel utilize personal fall protection equipment, the Service Provider must have a documented fall protection rescue plan. Service Provider fall protection rescue plans must be available for Boeing review upon request.
- h. Prior to accessing roof tops the Service Provider shall coordinate access with the Boeing OAR. Authorized Service Provider personnel may only enter approved areas of roof tops necessary to perform the Service Provider's scope of work. Additional coordination is required.
- i. Before accessing a roof, the Service Provider must have a fall protection work plan identifying the area of the roof where work will be occurring and describing the required safeguards for employees. The Service Provider will make the plan available to Boeing for review upon request.

#### **4.13 Ladders and Scaffolding**

- a. Ladders shall be in good condition and used as intended (e.g., do not use portable A-frame step ladders as straight ladders).
- b. Portable metal ladders shall not be used for electrical work. The use of metal ladders is completely prohibited at some Boeing sites. Contact the Boeing OAR prior to use.
- c. Ladders shall not be used in front of doorways without posting or otherwise protecting the area.

- d. Scaffolds will have an inspection/certification tag affixed to scaffold prior to use.
- e. Scaffolding systems shall be erected and regularly inspected by a competent person. All scaffolding shall have work platforms fully planked; all braces, access ladders, proper guardrails, and toe boards must be installed. Where items may fall onto personnel working or passing below, safety netting shall be provided.
- f. During scaffolding erection, dismantling, and use, all employees shall be fully protected from fall hazards.

#### **4.14 Work Permits**

There may be additional site-specific permit and licensing requirements other than those specified in this document. Check with the Boeing OAR for further clarification. Additional coordination is required.

#### **4.15 Foreign Object Debris / Foreign Object Damage**

Foreign Object Debris (FOD) is any substance, debris or article that could find its way into a product system (e.g., aircraft, radar system, satellite, launch system, etc.) and cause damage. Service Providers shall take the following steps to prevent Foreign Object Damage:

- a. Prior to performing work within a FOD area, Service Providers must coordinate activities with the Boeing OAR. Additional coordination is required.
- b. Follow any posted FOD requirements when working in a FOD Critical, FOD Control, or FOD Awareness area.
- c. Maintain accountability for all tools, construction materials, hardware, and personal items brought into work areas.
- d. Properly contain and secure tools, construction materials, hardware and personal items to prevent them from falling off carts, being moved by weather events, or otherwise migrating into product systems.
- e. Pick up any dropped tools, debris or other objects promptly.
- f. Clean up and remove trash, scrap, excess materials, and other debris at least daily.
- g. Immediately report missing / lost tools and other items to the Boeing OAR.
- h. When work involves loose material (i.e., concrete, asphalt, gravel, dirt, etc.) that can migrate onto product system traveled surfaces or factories where product systems are manufactured, construct FOD barriers as necessary to surround the work area, contain all debris, and sweep up the area of any loose debris daily.

#### **4.16 Crane Operations**

a. General

1. Service Providers must coordinate all crane operations with the Boeing OAR, including material deliveries and hoisting operations. Additional coordination is required.
2. The Service Provider shall provide and use cranes and rigging that have been proof loaded and have required certifications available at the job site.
3. Service Providers must provide, upon request, evidence of crane safety training for the specific equipment to be utilized in accordance with Section 4.19.
4. All crane operations must conform to ASME (American Society of Mechanical Engineers) P30 Planning Standards and the ANSI/ASME B30 Safety Standards.

b. Overhead Cranes

1. Service Providers shall obtain approval from the Boeing OAR and schedule any work requiring access to and use of Boeing overhead cranes and crane space, work adjacent to Boeing overhead cranes, or work around Boeing overhead cranes. These activities may require the installation of bridge-crane rail tops, or inactivation of bridge cranes to preclude collision with Service Provider equipment. Hazardous energy control requirements are found in Section 4.8, Control of Hazardous Energy. Additional coordination is required.
2. Mechanical, electronic or other approved crane stop systems shall be installed in front and behind personnel while they are working in an elevated position, or while they are making a lift of materials through the crane travel zone, to protect them from the crane they may be working on and from any other crane entering from another area or adjacent bay.

c. Mobile Cranes

1. Service Providers shall obtain written approval from the Boeing OAR prior to use of a mobile crane greater than 200 feet in height and whenever the crane would be used within 20,000 feet of an airport or flight line. Additional coordination is required.
2. Service Providers shall provide and use cranes and rigging that have been proof loaded and Service Providers shall have all required certifications available at the job site.
3. Lift plans are to be provided to Boeing upon request.

#### **4.17 Utility Shutdowns**

Service Providers shall minimize service interruption during unavoidable utility shutdowns. Service Providers shall submit utility shut down requests to the Boeing OAR a minimum of two weeks before the requested date of the utility shutdown or as soon as it is known to be required. Additional coordination is required.

#### **4.18 Joint Occupancy Issues (Occupied Work Areas)**

- a. The Service Provider shall cooperate and coordinate work with Boeing and other Boeing Service Providers so all work may be promptly and properly performed without undue interference or delay. The Service Provider shall afford Boeing and other Boeing Service Providers reasonable opportunity for the execution of their work. Contact your Boeing OAR for additional assistance. Additional coordination is required.
- b. For work in close proximity to Boeing personnel, Boeing products, or other non-Boeing persons, a joint project specific safety plan may be required. Contact your Boeing OAR for more information. Additional coordination is required.

#### **4.19 Training**

- a. The Service Provider shall ensure that all of its employees are properly trained and hold regulatory-required certifications for all jobs and tasks that require specific training and/or competency to meet all applicable federal, state, and local regulations prior to conducting work for Boeing.
- b. All Service Provider employees shall be trained in, and be knowledgeable of, the Service Providers' Project Specific Environmental, Health and Safety Plan.
- c. The Service Provider shall submit to Boeing, on request, validation of the training received by Service Provider employees.
- d. Service provider employees must receive information/orientation as necessary to comply with site-specific requirements.

#### **4.20 Radiation Safety**

Written approval must be obtained through the Boeing OAR before any of the following activities occur. Additional coordination is required.

- a. Licensed radioactive material (e.g., gamma radiography equipment, moisture density gauges, etc.) is brought onsite.
- b. Class 3b or 4 lasers (as indicated by the label on the equipment) are brought onsite.
- c. Radio frequency sources capable of exposing personnel above OSHA limits are brought onsite.
- d. Machines that produce x-rays (x-ray machines, XRF units, etc.) are brought onsite.
- e. Service Providers work in any area restricted for purposes of radiation protection.
- f. Service Providers work with any radioactive material possessed under a Boeing license.

#### **4.21 Traffic Control**

- a. When delivering and receiving material, Service Providers shall ensure that traffic controls are in place, including flaggers, truck waiting areas, staging areas, and appropriate traffic guidance signs.
- b. If at any time a road or other traffic hazard (e.g., obstructions, poor lighting, etc.) exists that impacts drivers, pedestrians, or material handling activities, Service Provider must place obvious warning devices in order to alert affected people/vehicles approaching the hazard. These warning devices shall remain in place until the hazard is mitigated. For all traffic control issues, coordinate with your Boeing OAR. Additional coordination is required.

#### **4.22 Explosives (Class 1) and Explosive Containing Devices (ECDs)**

Note: This does not apply to ammunition or powder-actuated tools.

ECDs are devices, regardless of hazard class, that contain an explosive such as fire extinguishers (halon bottles), or other articles during their installation or removal.

- a. Before bringing an explosive or ECD onto Boeing property, Service Providers must prepare an explosives safety plan and work instructions for use of the explosive and/or ECD, and provide the plan and instructions to Boeing upon request.
- b. Prior to the commencement of explosives work, coordinate with the Boeing OAR. Additional coordination is required.

## 5.0 ENVIRONMENTAL

### 5.1 ISO 14001 Environmental Management System (EMS)

- a. Service Providers at Boeing facilities that are ISO 14001 certified must ensure that their employees are made aware of the Boeing Environmental Policy and written procedures established for activities, products, and services necessary to protect the environment. The following is the Boeing Environmental Policy Boeing is committed to:
  1. Conduct operations in compliance with applicable environmental laws, regulations, and Boeing policies and procedures.
  2. Prevent pollution by conserving energy and resources, recycling, reducing waste and pursuing other source reduction strategies.
  3. Continually improve our environmental management system.
  4. Work together with our stakeholders on activities that promote environmental protection and stewardship.
- b. Service Providers must be familiar with and comply with the Boeing Environmental Policy and have knowledge of how their actions may impact the environment, and the consequences of not following proper procedures.
- c. For more information on the ISO 14001 program contact your Boeing OAR.

### 5.2 Hazardous Materials

- a. Hazardous materials stored on Boeing sites shall be labeled, stored under cover, in containment, and be segregated with regard to material compatibility. Storage areas must be approved by the Boeing OAR. Additional coordination is required.
- b. Secondary containment must be provided for operations involving the transfer (e.g., pouring, pumping, or dispensing) of hazardous materials.
- c. A utilization report may be required at some locations for hazardous materials that are brought on site. Verify requirements with the Boeing OAR. Additional coordination is required.
- d. Keep containers closed when not in use.
- e. No lead or asbestos containing materials are permitted to be brought on site, without prior approval by the Boeing OAR. Additional coordination is required.
- f. Powder-Actuated Tools - Only lead-free cartridges may be used.
- g. When bringing hazardous materials onto a Boeing site, notify the Boeing OAR. Additional coordination is required.

### 5.3 Waste Handling and Disposal

- a. If Service Provider activities generate hazardous or solid waste, coordinate with the Boeing OAR. Service Provider must develop a written plan for managing waste to the Boeing OAR upon request. Additional coordination is

required.

b. Hazardous Waste:

1. Boeing disposes of all hazardous waste, including universal waste, used oils, etc. that is generated on its property, regardless of the party that generates the waste. Service Providers shall not take hazardous waste off site. If the Service Provider needs assistance with hazardous waste management, establishing a waste accumulation point or complying with hazardous waste regulations, contact the Boeing OAR.
2. All hazardous waste generated by the Service Provider shall be properly segregated, containerized, and labeled by the Service Provider, as directed by the Boeing OAR. Additional coordination is required.
3. Keep all waste containers closed between waste additions to containers.
4. Monitor your waste stations on a daily basis. Inspect the stations for leaks and full containers of waste. Report any issues such as spills, bulging containers, etc. to the Boeing OAR.
5. When a waste drum becomes full, it must be immediately removed from the work site as directed by the Boeing OAR. Additional coordination is required.
6. If managing hazardous waste in an “accumulation area”, a container must not accumulate waste for more than 60 days after the date shown on the hazardous waste label affixed to the container.
7. Never dump or discharge hazardous waste into storm drains, building sanitary sewer drains, rest rooms or solid-waste containers.

- c. Non-hazardous waste: (as defined by federal or state regulation) Follow non-hazardous waste disposal policies as communicated by the Boeing OAR. These policies cover construction debris, waste minimization and recycling. Additional coordination is required.

## 5.4 Suspect Materials

a. Asbestos Awareness

1. Notify the Boeing OAR prior to conducting activities that may disturb asbestos. Additional coordination is required.
2. Boeing project locations may contain asbestos-containing materials. Prior to the start of work, obtain a written asbestos determination/survey from the Boeing OAR regarding the presence or absence of asbestos-containing materials (ACM) associated with the work.
3. Abatement of all ACM affected by the project shall be coordinated by the Boeing OAR. Additional coordination is required.
4. If, after the project commences, the Service Provider discovers a possible asbestos disturbance, new suspect materials, or there is a change in the scope of work or affected area of work, stop work immediately and notify the Boeing OAR. Work shall remain stopped until a resolution can be coordinated by the Boeing OAR. Additional coordination is required.

b. Lead Awareness

1. Notify the Boeing OAR prior to conducting activities that may disturb lead. Additional coordination is required.
2. All painted surfaces are presumed to contain lead unless determined otherwise.
3. Lead can be found in a variety of different products, such as greases, solders, sealants, paints, coatings, lead shielding in walls and around tables, lead pipes, ceramic tile glaze, and counterweights.
4. Operations or processes that may cause lead exposure include but are not limited to:
  - Spray painting with paints containing lead.
  - Grinding, sanding, or welding on lead-based paints.
  - Soldering activities.
  - Demolition of oxidized lead shielding.
5. Lead containing paint shall be removed before Service Provider proceeds with any grinding, sanding, or welding activities.
6. Never use compressed air to remove lead dust.
7. All lead-abatement activities are coordinated through the Boeing OAR. The Service Provider shall prepare a written plan for lead abatement activities and provide that plan to Boeing upon request. Additional coordination is required.
8. If, after the project commences, the Service Provider discovers a possible lead-containing material disturbance or new suspect material, work shall stop immediately until the Boeing OAR can determine the next course of action.

c. Soils and Remediation

1. Final disposition of all soil shall be coordinated through the Boeing OAR. Additional coordination is required.
2. Immediately contact the Boeing OAR listed at the front of this document if you notice contaminated soil or water during excavation activities. Watch for fuel and solvent smells, visible oil sheen, and other indications of contamination. Stop work immediately until the Boeing OAR can determine the next course of action.

## 5.5 Air Quality

- a. If Service Provider activities may produce emissions of any air pollutant, the Service Provider must develop a written plan for minimizing these emissions and provide this plan to the Boeing OAR upon request. Additional coordination is required.
- b. The Service Provider shall not emit any air contaminant in sufficient quantities and of such characteristics and duration that is likely to be injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life or property. Contact the Boeing OAR if you are not sure your activity falls in this category.

- c. Open burning is strictly prohibited.
- d. Minimize idling of equipment whenever possible.
- e. Vehicles and equipment shall not leave the work site coated with dust, dirt, or mud.
- f. Truck loads and roll-off containers with loose materials shall be covered. The Service Provider shall take appropriate measures to prevent drag-out and fugitive emissions.
- g. All Service Providers shall take measures to prevent overspray and airborne emissions from painting and blasting operations from depositing on adjacent buildings and automobiles. Any such deposits must be swept up immediately.
- h. Abrasive blasting and spray-painting operations shall be performed inside a booth designed to capture the blast grit or overspray. Outdoor blasting or painting of structures or items too large to be reasonably handled indoors shall employ control measures, such as curtailment during windy periods, and enclosure of the area being painted or blasted. Contact the Boeing OAR for specific requirements before starting outdoor blasting or painting activities. Additional coordination is required.
- i. For grade-and-fill operations associated with construction and demolition projects, employ water spray as needed to prevent visible dust emissions. The application of water for dust control that does not infiltrate into the ground must be contained by use of the approved erosion and sediment controls.
- j. Airborne and blowing dust and debris shall be controlled. The Service Provider is responsible to obtain any necessary dust control permits. Contact the Boeing OAR before the start of any activity that may generate dust.
- k. All material that contains volatile organic compounds (VOC), such as paints, coatings, sealants, or resins that are to be used shall be pre-approved through the Boeing OAR. Additional coordination is required.
- l. If internal combustion engines or equipment using refrigerants are brought onsite (e.g., emergency generators, temporary boilers, freezers) additional permitting or record keeping may be required. Use of this type of equipment shall be pre-approved through the Boeing OAR. Additional coordination is required.

## 5.6 Water Quality

- a. If Service Provider activities may produce wastewater, or if the Service Provider may handle hazardous materials in an area that may be exposed to stormwater, the Service Provider must develop a written plan for handling such wastewater or stormwater. This plan must be provided to the Boeing OAR upon request. Additional coordination is required.
- b. Wastewater, including, but not limited to, concrete slurry, water from dewatering, cooling water and stormwater, shall be handled in accordance with

instructions from the Boeing OAR or the Service Provider's written wastewater plan.

- c. Never pour any liquid into a storm drain. Potable water or fire hydrant water cannot be discharged to a storm drain without written permission provided through the Boeing OAR. Additional coordination is required.
- d. Do not use a hose or pressure washer to clean pavement unless the resulting wastewater can be contained. Alternative methods, such as sweeping, shall be used.
- e. No vehicle, equipment, or building washing is permitted outside without prior approval from the Boeing OAR. Contact your Boeing OAR for additional assistance. Additional coordination is required.
- f. Equipment and vehicles shall be maintained in good working order to prevent leakage of fluids (e.g., fuel, hydraulic fluids, and antifreeze). Methods to prevent and contain leaks must be implemented by the Service Provider (e.g., drip pads).
- g. Sanitary sewage and industrial wastewater shall be disposed of in accordance with instructions from the Boeing OAR. Additional coordination is required.
- h. Store all hazardous materials and hazardous waste (including contaminated demolition debris) in a covered and contained area to prevent possible stormwater or soil contamination. The containment shall be large enough to hold 110% of the volume of the largest container. This applies to materials and waste that are both hazardous and nonhazardous in nature.
- i. Implement the Boeing-approved Best Management Practices (BMPs) as needed, to prevent stormwater contamination, such as, but not limited to, silt fences, tarps for rain covers, and drain covers. Approved BMPs are available from the Boeing OAR. Additional coordination is required.
- j. When a Stormwater Pollution Prevention Plan (SWPPP) is required:
  - 1. The Service Provider will submit a SWPPP to the Boeing OAR. Additional coordination is required.
  - 2. A copy of the site Construction General Permit, SWPPP, and National Pollution Discharge Elimination System (NPDES) General Permit must be kept at the construction site at all times during construction and prior to notification from the agency that the NPDES permit has been terminated. Note: Coordinate with Boeing OAR to ensure all required permits have been obtained and are posted.
  - 3. The Service Provider shall maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.
- k. Refueling and mobile equipment repair shall be conducted away from storm

drains and waterways. Refueling over unpaved areas must be fitted with temporary containment or spill control. Spill clean-up materials shall be staged on site, in well-marked containers, and in sufficient quantity and locations to respond to spills such as hydraulic equipment leaks.

- I. Portable toilets must be secured as necessary to prevent them from being blown or knocked over and must be leak-free, maintained in good working order, and located at least 100 feet from any waterway or storm water conveyance structure. Portable toilets must be serviced by a permitted company and cannot be dumped at the site.

## 6.0 SITE-SPECIFIC REQUIREMENTS

The following provisions identify additional obligations for Service Providers when performing work at Boeing Everett, WA.

These requirements supplement, but do not replace, other applicable requirements for the Service Provider, including, but not limited to:

- requirements in contracts and agreements between Boeing and the Service Provider;
- requirements contained in Sections 1.0 through 5.0 of the Service Provider Manual;
- provisions of the Service Provider's project-specific EHS plan; and
- applicable laws and regulations

To the extent that a Boeing requirement does not meet the requirement of federal or **Washington State** law, the requirement of federal or **Washington State** law supersedes the Boeing requirement, and the Service Provider must comply with the federal or **Washington State** requirements.

Where a Boeing requirement exceeds the governing federal requirement or **Washington State** requirement, the Service Provider must comply with the Boeing requirement.

If the Service Provider is not sure whether a particular requirement applies to the work being performed or believes that two or more applicable requirements may conflict with each other, the Service Provider must immediately inform the Boeing Supplier Management Representative to resolve any questions about the requirements.

### 6.1 Everett Specific General Requirements

**Site Visitor Guide:** The Everett Site Visitors guide is an additional resource for review. This guide is available from the Boeing OAR and the Everett Badge Office.

### 6.2 Area Access

Some locations require additional access control for safety or security reasons. Primary controls are training and use of badge cards to identify trained/allowed personnel. Coordinate with the Boeing OAR.

Use the Non-Emergency Boeing Security and Fire Protection contact number at (206) 655-8800 for access to areas that are locked or temporarily closed.

Service Providers must provide unimpeded access to their work areas during business and off-shift hours to agents of the company conducting

authorized tasks (i.e. safety investigations, security control, emergency services, maintenance groups, etc.). Methodology of providing access during business and off-shift hours to these groups should be coordinated through the Boeing OAR. This does not apply to by-standers or general Boeing employees.

### **6.3 Emergency Shelter-In-Place Locations**

Everett “Shelter-in-Place” locations are not generally marked. They are defined as “enclosed areas and, when possible, an above ground floor”.

They do not include the following:

- Elevators
- Tunnels
- High Bay manufacturing areas

Ask your Boeing Onsite Service Representative for the Emergency Plan for the area you are working in, or for more specific information on Shelter-in-Place procedures.

### **6.4 Badging**

All badges for Everett are issued by the Badge Office, located at the 40-88.1 Building, 15H11. The Badge Office is open 5:45 am – 2:45 pm, Monday through Friday. May be contacted at 425-266-1470, DL-EVTBadgeOffice@exchange.boeing.com.

To obtain a badge, work through Supplier Management or your OAR.

Non-employees may be issued a Secure Badge (e.g., a badge with photo identification) or a temporary construction badge based on the frequency and requirements of their business. For non-employee onsite access greater than 30 days, processing time is a minimum of five (5) business days.

Badges must be returned to the Boeing OAR or badge office upon termination.

### **6.5 Vehicles and Mobile Equipment**

Due to the large and complex nature of the Everett site, vehicle and pedestrian safety is an important safety focus area.

- Park only in designated areas. Service Providers should coordinate with the Boeing OAR to identify authorized parking locations and obtain appropriate windshield passes or credentials.
- Passenger shuttles may only be passed when hazard lights are turned off. The only exception is when directed otherwise by Security Operations personnel.

**6.5.1 Vehicle Operation on the Everett Flightline:** A Flightline pass is required for access and to drive on the flightline. Service Provider passes do not expire; however, it is the responsibility of the Boeing OAR to retrieve the Service Provider's flightline pass when it is no longer needed; and return it to the Everett Delivery Center flight line pass focal.

Service Providers must work with the Boeing OAR to receive Flightline Safety Awareness training prior to applying for the pass. Flightline specific safety requirements include (but are not limited to):

- Leave car unlocked with keys or key fobs on the driver's seat or in the ignition. Set parking brake.
- DO NOT pass in front or behind a taxiing airplane until it has passed by more than 2 stall lengths (600 feet) Airplanes always have the right-of-way.
- DO NOT pass a static airplane under tow unless directed to do so by the wing walker.
- DO NOT drive between a moving airplane and any guide vehicle or marshaler.
- DO NOT cut through Flightline stalls.
- Follow posted work restriction when a severe weather beacon is flashing
- DO NOT drive between a moving airplane and any guide vehicle or marshaler.

**6.5.3 Speed Limits:** Vehicles shall not be operated in excess of the following maximum allowable speed limits:

- Inside buildings 5 mph
- Parking lots 10 mph
- Roads inside the fence line 15 mph
- Aircraft ramps 15 miles per hour
- Perimeter roads outside the fence line 25 mph unless posted otherwise

**6.5.4 Driving Lanes:** Use only marked vehicle transportation lanes. Material handling lanes are for the exclusive use of material handling equipment (Forklifts, Large Cargo Loader, Straddle Carrier, etc.). Personal and company vehicles, including service vehicles and electric carts, are NOT authorized to use the material handling lanes.

Vehicle travel inside the Everett factory is limited to reduce congestion and potential pedestrian interaction incidents. Vehicles are to only be operated inside the buildings when performing essential and authorized work functions:

- Parts must travel through established drive lanes and MEO approved routes.

- Parts staging are unauthorized in North/ South Aisles, fire lane aisle intersections, and pedestrian paths.
- Two-lane transportation aisles: one lane will always be left open to allow emergency vehicle flow.
- Vehicles parked in the factory must be parked in a dedicated stall off of the fire lane aisle and must clearly display appropriate vehicle ownership signage.
- Proper infrastructure must be in place to support the vehicle (ex; power hookups, required space, utility clearance)

Bicycle, tricycle, cart, scooter, and forklift use in the factory tunnels are prohibited unless specifically authorized by the Boeing OAR as essential work.

**6.5.5 Fire Lanes:** Emergency responders supersede all production support when responding to emergency situations. Clear passageways are critical to ensure dispatched emergency responders are able to provide timely medical, security, and fire response.

The Everett site considers all lanes inside the factory fire lanes (not general driving lanes).

All other fire lanes are marked by 4" inch red paint striping running parallel to the roadway.

Obstruction of fire lanes is never authorized. Any blockage or nonstandard movement along fire lane transportation aisles must be communicated to Fire & Security and Boeing OAR. Additional coordination is required.

**6.5.6 Vehicle Operation on the Everett Flightline:** A Flightline pass is required for access and to drive on the flightline. Service Provider passes do not expire; however, it is the responsibility of the Boeing OAR to retrieve the Service Provider's flightline pass when it is no longer needed and return it to the Everett Delivery Center flight line pass focal.

Service Providers must work with the Boeing OAR to receive Flightline Safety Awareness training prior to applying for the pass. Example Flightline specific safety requirements include;

- Leave car unlocked with keys or key fobs on the driver's seat or in the ignition. Set parking brake.
- DO NOT pass in front or behind a taxing airplane until it has passed by more than 2 stall lengths (600 feet) Airplanes always have the right-of-way.
- DO NOT pass a static airplane under tow unless directed to do so by the wing walker.
- DO NOT drive between a moving airplane and any guide vehicle or marshaler.
- DO NOT cut through Flightline stalls.
- Follow posted work restriction when a severe weather beacon is

- flashing
- DO NOT drive between a moving airplane and any guide vehicle or marshaler.

**6.5.7 Traffic Signs and Traffic Control Devices:** All traffic signs, lines, signals, and control devices will be obeyed, unless directed otherwise by Security Operations personnel. When traffic signs or control devices are not present, general highway rules apply.

**6.5.8 Overhead Doors and Doorways:** All drivers of vehicles will come to a complete stop before passing through doorways. Vehicles shall not pass under any overhead door that is in motion.

**6.5.9 Proper Protective Equipment:** All drivers and passengers onboard **non-enclosed** vehicles (including scooters without doors) are required to wear Safety glasses when inside the factory.

All drivers and passengers onboard **enclosed** vehicles will be required to wear safety glasses when they get outside of the vehicle or when windows are down.

#### **6.5.10 Cell Phones, Listening Devices and other Electronic Devices**

Drivers shall not wear portable headphones, earphones, or other listening devices while operating a vehicle, unless such are required to perform their job.

### **6.6 Pedestrian Safety Requirements**

Stay within marked pedestrian path, walkways and crosswalks where available.

Do not use roll up doors intended for vehicle use. Exceptions must be coordinated through the Boeing OAR.

Avoid high-bay pedestrian doors leading into Local Receiving Areas (LRAs); only LRA employees are authorized within the LRAs.

Yield right-of-way to emergency vehicles and airplanes.

Use of portable electronic devices is prohibited while in motion. Pedestrians are required to stop movement and ensure safe surroundings before use.

- 6.6.1. Pedestrian Requirements on the Everett Flightline:** All personnel must wear "Yellow": ANSI Class II high visibility apparel when walking or traveling outdoors on the Flightline. Contact the Boeing OAR for current Flightline boundaries.

Do not walk behind an airplane while engines are running. Engine run

barriers and Aircraft anti-collision lights are warning indicators to stay clear.

## **6.7 Personal Protective Equipment**

All projects with specific PPE requirements must have signage informing personnel of the requirements.

PPE assessments and requirements by task shall be included in the project-specific safety, health and environmental plan.

**6.7.1 Protective Eyewear:** Protective eyewear is required in all production areas at Everett site.

Tinted, shaded, photo-chromic or mirrored lenses are prohibited for indoor work. Any exception must be coordinated through the OAR.

**6.7.2 Protective Footwear:** At a minimum, foot protection shall be equivalent to the Everett requirements for factory footwear as follows:

- Completely cover your feet (incl. tops, toes, & heels)
- Shoes should cover an area on the top of your foot greater than the widest part of your hand
- Made of sturdy material that resists cuts & punctures
- Heels <2" high & heel base >1" square
- Soles at least ¼" thick for protection from sharp objects

**6.7.3 Hearing Protection:** If your work includes noise levels that reach or exceed 85 decibels, appropriate signage must be posted.

Follow posted signs for hearing protection requirements.

**6.7.4 Head Protection:** Certain areas of the Everett site and/or operations have hazards that require the use of head protection PPE (hard hat or bump caps).

All personnel are required to wear a hard hat when performing:

- Crane operations
- While in the crane envelope
- Exposed to overhead hazards
- As required by industry specific code

A Bump cap is required whenever work is performed under a stationary structure with less than 75-inch clearance.

## **6.8 Injury, Property Damage and Near Miss Reporting**

The Service Provider must inform the Boeing OAR of incidents and significant near misses.

The Service Provider must immediately notify the OAR, who has responsibility to notify Everett Site EHS, Boeing Operations, and/or the Boeing Procurement Agent regarding incidents that:

- Require an ambulance, security, or fire department response.
- Result in hospitalization of one or more employees.
- Lead to amputation or loss of eye.
- Involve aircraft or property damage that may have safety or environmental implications.

Following immediate notification, the Service Provider shall provide the following to the Boeing OAR:

- Written investigation reports for these accidents/incidents within 24 hours of the event.
- Upon request, a monthly summary of injuries and hours worked each month.

At the discretion of Boeing, additional investigation may be conducted for an incident at any of its locations involving a Service Provider.

## **6.9 General Housekeeping**

Service Provider shall be responsible for properly organizing all activities on the job site to the extent that good housekeeping shall be practiced at all times. This shall include, but not be limited to:

- All materials, tools, and equipment must be stored in a stable position to prevent rolling or falling. Materials and supplies shall be kept away from edges of floors, hoist ways, stairways, and floor openings. When exterior walls are being built, materials and supplies shall be kept away from the perimeter of the building.
- A safe access way to all work areas and storage areas must be maintained. All stairways, corridors, ladders, catwalks, ramps, passageways, and work platforms shall be kept clear of loose material and trash.
- Forms and scrap lumber with protruding nails and all other debris shall be cleared from work areas, passageways, stairs, and in and around buildings or other structures.
- Combustible scrap and debris shall be removed at regular intervals.

Always check with the Boeing OAR for unique or more stringent area housekeeping requirements (i.e. a clean room).

## **6.10 Flammable Liquids**

All storage areas for flammable or combustible liquids shall be approved by the Everett Boeing Fire Inspector for the Building.

Flammable storage cabinets must be self-closing.

## 6.11 Spray Painting, Flammable Resins, Chemical

Paint crews or their supervisors must post a `Paint Notification Flyer`, which identifies the paint (by SDS) and informs area personnel. Boeing Fire Department inspection and approval are required before painting, including spray painting and before cleaning with flammable materials outside of approved areas. Additional coordination is required.

Unless arranged and approved by the Boeing Fire Department, only explosion-rated or intrinsically safe electrical equipment shall be utilized in hazardous areas.

If strong odors or significant air contaminants may be generated as a result of service provider activities, additional coordination with EHS is required, in order to manage the impact on surrounding work areas.

## 6.12 Welding/Cutting Activities

If painted metal is cut or welded with heated applications, the Service Provider must remove painted material prior to start of work.

The Service Provider performing hot work in any area shall:

1. In advance of operations, request Boeing Fire to inspect the affected area by calling 206-655-8800.
2. Before proceeding with hot work, ensure that Boeing Fire Protection has reviewed the work scope and provided a Hot Work Permit (F710000051). The following are safety requirements for obtaining a hot work permit:
  - a. Fire extinguishers approved by Boeing Fire Protection for the specific hazards of the location shall be readily accessible in the immediate area.

*Note 1: Permanently installed fire extinguishers located within a building or areas are not intended to meet these requirements.*

*Note 2: Service Providers shall provide their own fire extinguishers suitable to the associated hazards.*
  - b. Permanently installed fire protection systems shall be in working order.
  - c. Detection devices shall be protected from smoke and flames to prevent damage or activation.
3. Display the Hot Work Permit (F710000051) in the immediate hot work area. All items marked and all comments written must be complied with prior to any hot work beginning.

4. If the welder or operator has questions after ensuring compliance with issued permit, they must contact Boeing Fire and have a re-inspection of the job site prior to work beginning.
5. Arrange for the removal or protection of materials, personnel, or equipment as required by Boeing Fire.
6. Ensure that adequate ventilation and personnel protective devices are provided and used.

Note: When necessary, consult with site EHS for requirements.

7. Areas requiring hot work operations on a continuous basis (i.e. more than one day) must obtain an Approved Hot Work Area Permit (X36679) issued by the Boeing Fire Department

### **6.13 Fire Protection Systems**

When sprinkler valves need to be closed, the Service Provider must first make contact with the Fire Inspector assigned to the building and coordinated through the Boeing OAR.

All scheduled sprinkler valve closures must be called-in and scheduled with Fire Inspector, no less than 24 hours prior to the actual closure/shut-down date. This action needs to be coordinated through the Boeing OAR and may require a pre-shutdown meeting. Note: It is the Service Provider's responsibility to research which Sprinkler System needs closed/shut.

For closure/shutdown, a firefighter will unlock the sprinkler valve and place a closure tag along with lock on the sprinkler valve (firefighters will not 'Turn' open or shut valves). This tag has information about the work and the system and shall remain on the sprinkler valve during the closure period.

Once the Service Provider has accomplished their work, and has placed the sprinkler valve back in-service, the Service Provider shall notify the Boeing Fire Department (206-655-8800), to have the sprinkler valve inspected by Boeing Fire personnel, prior to being placed back in service.

Sprinkler valve closure/shut-down longer than eight hours, and any closures/shut-downs involving side-by-side sprinkler valve configurations, within a building or work area needs to be authorized by Boeing Fire Department.

All Sprinkler Valve alterations, reconfiguration, additions and/or reductions, shall be approved by Boeing Fire Protection Engineering, prior to any Sprinkler Valve work.

### **6.14 Roofing**

Prior to accessing any roof areas, Service Provider must develop project-specific fall protection work/safety plans and verify they have been

reviewed by Boeing EHS

If Service Provider is working on or near roof edge of Building 45-01, the FAA must be notified in as much advanced notice as possible of type of work to be performed on roof and preferred schedule. The FAA will then schedule the equipment out of service and make sure it is properly shut down and locked out. Additional coordination is required.

### **6.15 Radio Frequency**

For land mobile radios, wireless crane controls, and other radio frequency (RF) communications systems coordinate with the Boeing OAR, who has responsibility to coordinate with the Everett Radio Shop prior to installation or modification.

See APPENDIX E Radio Request.

Before modifying or relocating any existing RF Equipment, consult with the designated Boeing frequency manager to determine if additional action must be taken regarding the status of the RF Equipment or the need to obtain a new station authorization.

All employees who operate or maintain RF Equipment must be qualified and possess a license or permit of the class dictated by applicable rules.

### **6.16 Project Specific Environment, Health and Safety (EHS) Plans**

It is recommended that Service Providers employ or work with a trained health and safety professional to develop their plan. Recommended training for safety supervisors is

- OSHA 30 or equivalent
- First Aid/CPR/AED training

It is further recommended that a full-time trained safety supervisor be assigned on site when there are 30 employees (or required by contract) and/or subcontractors working in construction, maintenance, manufacturing or related activities.

### **6.17 Hazard Communication/Safety Data Sheets**

Before bringing any hazardous material on site, the Service Provider shall furnish the following information to a Boeing Everett Industrial Hygienist for approval

- Safety Data Sheets
- How it will be used
- Volume and quantities of containers

Boeing Everett Industrial Hygienists must review all Service Provider SDSs for hazardous materials before work begins and will provide a notification of approved hazardous materials in a work area.

Everett Site EHS may prohibit use of a material on site if the proposed use creates a hazard to Boeing personnel or the environment. Review APPENDIX F of this document for prohibited hazardous materials and chemicals.

## **6.18 Control of Hazardous Energy**

Service Provider must provide a written procedure of lockout device, lock, tagging system components, and methods for lockout removal.

When a Service Provider is required to lock out a Boeing system, they shall coordinate with the Boeing OAR to schedule the outage (SEE APPENDIX D Utilities Shutdown Notice). Additional coordination is required.

## **6.19 Infrastructure Support Shutdowns**

Scheduling for support is to be performed a minimum of 7 days prior to the scheduled outage.

Coordination of support shall be performed on the shift the outage will be performed on.

Boeing Maintenance may perform LOTTO for protection of equipment to support a controlled re-start. All Service Providers must perform their approved LOTTO requirements prior to working on any system.

**6.19.1 Prime Power Utility Shutdown:** Prime Power utility shutdown requirements must be followed with any planned work that will directly affect or change the configuration or function of a substation or associated circuit breakers.

The Service Provider must assure us that all affected employees are informed of the procedure(s) being used and the hazards that may be encountered if the plan is not followed.

Support from the Everett Prime Power team is required if work will directly impact the operation or function of a substation or associated circuit breakers.

Support from Everett Electrical Engineering and Everett Prime Power team is required if:

- Work will directly affect or change the configuration or function of a substation or associated circuit breakers
- Help is needed to identify and eliminate Infrastructure impacts and safety hazards.

Boeing Maintenance may put lock(s) and/or grounds on for protection of equipment only.

All Service Providers must verify absence of voltage prior to working on systems

**6.19.2 Steam/Boiler Shutdowns:** Support from Infrastructure Maintenance team is required if work will directly impact the operation or function of a Steam, Condensate or Hydronic loop distribution piping or system.

Support of Mechanical Engineering, Boiler Operator and Maintenance Plumbing is required if:

- Work will directly affect or change the configuration or function of a Steam, Condensate or Hydronic loop System
- Help is needed to identify and eliminate Infrastructure impacts and Safety hazards.

**6.19.3 Chilled Water - Chillers Shutdowns:** Support from Infrastructure Maintenance team is required if work will directly impact the operation or function of a Chiller, their Controls or the alteration of Chiller water makeup or distribution piping.

Support of Mechanical Engineering, HVAC chiller plant operator and Maintenance Plumbing is required if:

- Work will directly affect or change the configuration or function of the Chilled Water makeup or distribution piping system
- Help is needed to identify and eliminate Infrastructure impacts and Safety hazards.

**6.19.4 Compressed Air/ Air Compressors Shutdowns:** Support from Infrastructure Maintenance team is required if work will directly impact the operation or function of a site air compressor or the controls or alteration of the distribution piping or system.

Support of Mechanical Engineering, Air compressor operator and Maintenance Plumbing is required if:

- Work will directly affect or change the configuration or function of the Compressed Air makeup or distribution piping system.
- Help is needed to identify and eliminate Infrastructure impacts and Safety hazards.

**6.19.5 Utility Shutoff Plan:** The utility shutoff plan and schedule must be agreed to by the customer and include:

- The reason for the interruption and why it is needed.
- The shutdowns, traffic/parking revisions, and any other activity revisions which may affect operations.

- Alternatives to the interrupted services.
- Process for requesting shutdowns consistent with site requirements.
- Lockout/tag-out/tryout procedures consistent with the applicable Boeing safety document.
- Ample lead time according to contract documents, normally two weeks.
- Beginning and ending dates and times for each interruption.
- List of buildings and areas to be shut down.
- Notification of affected parties once the utilities are available again.

See APPENDIX D. UTILITY SHUTDOWN NOTICE

## **6.20 Aircraft Lockout, Tag, Tryout**

Whenever a Service Provider is working on or near the aircraft:

Check in and coordinate with the Boeing Group Coordinator (GC) before proceeding with work. The Boeing GC must confirm with the Service Provider that they have all received required LOTO training from their employer.

The Boeing GC will discuss with Service Providers the nature of work and whether that work requires the control of hazardous energy. If the work requires the control of hazardous energy, the Boeing GC will work with the Service Provider employees to compare Hazardous Energy Control Procedures (HECP) and determine whether a Boeing HECP or the Service Providers HECP should be used to protect employees.

The Boeing GC will designate a Boeing Primary Authorized Employee (PAE) to support the Service Provider employees.

- If the Service Provider employee will be using a Boeing HECP, the Boeing PAE applies to the LOTO and allows the supplier to verify the LOTO.
- If the Service Provider employee is using its company HECP, the Service Provider employee will apply the LOTO and allow the Boeing PAE to verify the LOTO.
- The Boeing PAE will provide familiarization of the Boeing LOTO process to Service Provider employees and complete the Authorized Employee Training Checklist provided by the GC for Escorted non-factory/field Employees form (Appendix J, RC-025G Section 9.4).
- The Boeing PAE insures that LOTO is documented on a Log

sheet (form X35861) and that Service Provider employees (Authorized Employees) protected by the LOTO while performing the work also sign in and are instructed to sign out after completing their work. The Log sheet is entered in the LOTO Logbook.

Service Provider employees will follow Boeing requirements for LOTO devices.

**6.20.1 Energizing Aircraft Systems:** Personnel safety and aircraft quality may be impacted by energizing aircraft systems if the proper conditions are not achieved before applying electrical, pneumatic or hydraulic power.

Only Boeing employees shall energize aircraft systems. Under no circumstances shall the Service Provider energize aircraft systems.

If the Service Provider requires an energized system to perform work, the Service Provider must coordinate the activity with the Boeing GC.

## **6.21 Trenching and Excavations**

Where oxygen deficiency or a hazardous atmosphere exists, or could reasonably be expected to exist, the atmospheres in excavation or trenches greater than 4 feet in depth shall be tested before employee entry. Results of the testing must be documented.

Fall protection must be implemented near a trench or excavation at 4' depths when a fall hazard exists.

There must be documented daily inspections by a competent person in accordance with section 4.9e of this manual.

## **6.22 Pre-Dig Process**

Excavations have the potential to damage underground utilities. At the site, excavations are classified as any type of work that penetrates the ground surface. Utilities may have non-standard installation which requires more than standard industry practices.

Service Providers shall use, at the minimum, Ground Penetrating Radar (GPR) for locating underground utilities. When necessary, other means will be used, in addition to GPR. Coordinate with the Boeing OAR for direction.

Underground utilities shall be located for the entire run of excavation. Examples of work that qualifies as excavations are saw cutting, core drilling, lagging below grade, and mechanical or hand excavation.

See APPENDIX B. PRE-DIG CHECKLIST

### 6.23 Confined Space Entry

The Service Provider shall have a confined space entry program and permits in accordance with regulatory requirements. Prior to any Service Provider personnel's entry into a Confined Space, the Service Provider shall submit a written confined space program to the Boeing OAR for coordination with local area Boeing Operations Management and Everett Site EHS.

Notify Boeing OAR of intention to enter a Boeing owned confined space.

Boeing EHS will provide a notification of the potential confined space hazards before entry into the confined space.

Provision of this Confined Space Hazard Form and related documents by Boeing does not relieve Service Provider or its Subcontractor(s), if applicable, of the duty to independently evaluate hazards presented by work in or around the Permit Required Confined Space (PRCS) and to implement the precautions and hazard controls necessary for safe entry into the PRCS. Service Provider and its Subcontractor(s), if applicable, must utilize their own PRCS program and related documents (e.g., PRCS entry permit) when entering the PRCS.

Before entry into an aircraft confined space is conducted, Form X33634 - Checklist for Non-Boeing Personnel Aircraft Confined Space Entry Training must be completed.

If a permit-required confined space will be reclassified, notify your Boeing OAR and Everett Site EHS.

Service Provider will debrief with a Boeing OAR after completion of work in the Boeing owned confined space.

For jointly occupied confined spaces, the Service Provider shall coordinate its confined space entry plan with Everett Site EHS, Boeing Operations Management and the Boeing OAR. Upon completion of joint confined space entry, the Service Provider shall hold a debriefing with co-entrant's management or Boeing OAR and submit a copy of the closed permit and debriefing to Everett Site EHS.

The Boeing Fire Department is the designated Confined Space Rescue Team. With prior coordination, they may make emergency rescue service available for confined space emergencies. Additional coordination is required.

### 6.24 Fall Protection

The Service Provider shall have and follow its own written fall prevention

program when working from surfaces, tooling, equipment, and product or building structures at four (4) feet or more above a lower level.

The Service Provider shall train its affected personnel, subcontractors and suppliers in all elements of the program.

The written Fall-Protection Work Plan may be reviewed by Boeing Everett EHS and include the following minimum elements:

- Identification of all fall hazards in the work area.
- Description of the method(s) of fall protection to be provided.
- Description of correct procedures for assembly, maintenance, inspection, and disassembly of the fall protection system to be used.
- Description of correct procedures for handling, storage, and securing of tools and materials.
- Description of method of providing overhead protection for employees who may be in or pass through the area below the work site.
- Description of rescue plan to include method for prompt, safe removal of injured employees.

Note: Fall plans must meet the design specifications of the fall protection qualified person when using engineered systems such as horizontal or vertical lifelines, this person must be defined in the Project Specific EHS Plan.

Fall protection work plans must be maintained in the work area or job site, made available to employees, and updated by the Service Provider.

Service Providers shall eliminate/mitigate any fall hazards created by their work that could affect Boeing employees.

Service Provider shall coordinate with the Boeing OAR prior to performing work involving aircraft fall protection.

Unless prior contractual arrangements are made, the Service Provider shall furnish their personnel with proper fall protection equipment and training in its use.

## **6.25 Equipment Installation Requirements**

Facility changes shall not be made without prior coordination with Facilities and Asset Management, Equipment Engineering, and/or Tool Engineering.

Service Provider supplied equipment and utilities to equipment shall not be installed without prior coordination with the OAR. Prior to this type of work, the Service Provider shall notify Boeing OAR (who will coordinate with Facilities and Asset Management and/or Equipment Services).

## REFERENCE APPENDIX D

Utility connections and disconnections must be coordinated with Facilities and Asset Management. Additional coordination is required.

Attach “Do Not Operate” orange tag [X21723](#) to equipment upon initial equipment arrival at installation site. This can be obtained through the Boeing OAR.

Install equipment to meet Boeing requirements, original equipment manufacturer requirements, code requirements, and approved design.

Facilitate equipment training for using organization operators on the equipment prior to use.

Review equipment installation to ensure all required safeguarding and placarding is in place and the required craft signoff have occurred prior to notifying EHS of the final equipment buyoff.

Ensure that equipment to be modified or relocated has been brought up to current applicable code requirements.

### **6.26 Disturbing Painted Material**

Prior to commencing work, Service Providers shall investigate potential for exposure to toxic metals and detail the necessary communication and risk abatement measures related to the proposed work in the project- specific EHS plan.

The Service Provider shall include provisions in the project-specific EHS plan to address potential hazards from toxic metals.

When complying with safety measures related to toxic metals, the Service Provider shall coordinate with the Boeing OAR and Boeing Northwest Regulated Material Management (Boeing NORMM). The Service Provider shall evaluate (in consultation with Boeing NORMM) whether heavy metal remediation is required.

All grinding, sanding, cutting or welding on surfaces coated with paints containing toxic metals is prohibited.

Operations or processes that may cause toxic metal exposure include grinding, sanding, soldering or welding on sealants, paints, and other materials containing toxic metals

All paints containing heavy metals shall be removed using techniques that prevent generation of airborne dust before proceeding with any grinding, sanding, cutting or welding activities. Paint removal shall be

performed by trained personnel.

All lead or cadmium abatement activities shall be coordinated through Boeing OAR. Additional coordination is required.

If the Service Provider discovers a possible lead or cadmium containing materials disturbance or new suspect material during the project, work shall stop immediately until Boeing determines the next course of action.

- Controls need to be in place to prevent the exposure of heavy metal dust or paint.
- Controls need to be in place to prevent generation of heavy metal dust during the handling of the material.

## 6.27 Robotic Work

At a minimum, Boeing requires Service Providers to adhere to:

- American National Standard Institute (ANSI) – ANSI/RIA R15.06 – 2025
- International Codes – International Standards ISO 10218-1 and ISO 10218-2
- Occupational Safety Health Administration (OSHA) – There is no OSHA robot standard, however OSHA references ANSI/RIA R15.06 as being the standard applicable to robot systems.
- The supplier must perform a risk assessment and risk reduction analysis in accordance with ANSI/RIA R15.06 methods.

Boeing requires Service Providers to:

- Take and follow all required training for building access.
- Respect all barriers and signage around robot cells
- Do not enter a robot cell unless you are an authorized person with proper training.

## 6.28 Working around Boeing Automated Guided Vehicles (AGV)

Boeing requires Service Providers to:

- Take and follow all required training for building access.
- Observe all marked areas of AGV operations



AGVs have the right of way. They will be traveling slowly with flashing lights and/or audible alarms

AGVs will have safety scanners that will stop the AGVs if someone/thing is

in their path. These scanners may only be active in the direction of travel.

Stay out of areas where you might be struck by an AGV or its load or pinned between the AGV/load and a fixed object.

## **6.29 Building, Maintaining, and Servicing Automated Guided Vehicles**

Service Providers shall eliminate or control hazards.

- Eliminate the hazard by design.
- Include safety devices such as light curtains, pressure-sensitive mats, two-hand controls, barriers or guards when there is a possibility of flying objects, or other guards and interlocks.
- Include warning devices or alarms.

EHS should be contacted to assist in the design and installation of automated, robotic or other NC-controlled equipment, to ensure that the assets and associated processes comply applicable Boeing command media.

## **6.30 Crane Operations**

**6.30.1 Overhead Crane Operations:** Overhead cranes are used throughout the main factory to transport heavy loads.

Move away from the path of overhead crane loads so that they do not pass above you. Stay away from the immediate area around and under the load, the crane, and the lifting tools during the lifting, lowering and moving

Service Provider shall coordinate with the Boeing OAR to schedule any work requiring:

- lifts by Boeing overhead cranes,
- work adjacent to Boeing overhead cranes,
- work around Boeing overhead cranes or
- work in the overhead crane space.

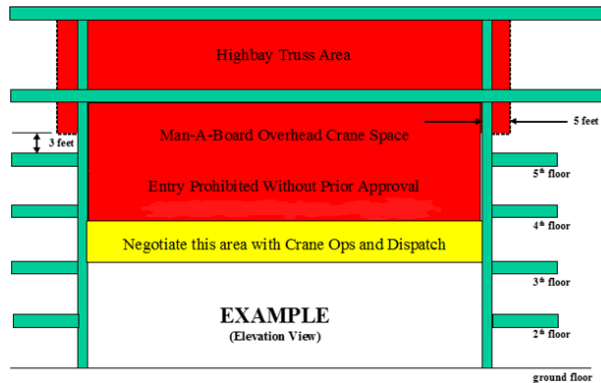
These activities may require the installation of bridge crane rail stops, or inactivation of bridge cranes to preclude collision with Service Provider equipment.

Prior to commencement of work in any Everett overhead crane space, Service Provider will be familiar with the process for Everett Factory Access to Overhead Crane Space. Coordinate with the Boeing OAR for this information.

At the commencement of the shift of the scheduled work, the Service Provider will not start work until they obtain a Crane Permit from Overhead Crane Operations Dispatch. Overhead Crane Operations Dispatch is not

obligated to issue any permits when unscheduled production requirements supersede the Service Provider activity. If such planned Service Provider activity is superseded or delayed for any time period for any reason, the Service Provider is to notify the Boeing OAR immediately.

Overhead Crane Space is the area in the high-bay, above the third-floor level, and above the bottom truss cord up to the underside of the roof. See picture below. For access, notify your Boeing OAR to get authorization from crane operations and crane dispatch.



It is mandatory to coordinate with Crane Operations and Crane Dispatch prior to any activity in this space.

Service Provider shall furnish and use, while working overhead, an effective method to prevent falling objects from endangering or injuring people, equipment, or products below.

**6.30.2 Crane Stop Process:** Unless prior arrangements have been made with the Boeing OAR with concurrence from affected stakeholders (local crane support and BU), Service Providers should not install crane stops.

Portable crane rail stops shall be installed front and rear of personnel working in an elevated position, or while they are making a lift of materials through the crane travel zone. The crane rail stops are installed to protect personnel from the crane they may be working on and from any other crane entering from another area or adjacent bay.

### 6.30.3 Mobile Crane Spaces:

Daily and pre-shift inspections must be performed and documented for all mobile equipment by the operator or other properly trained representative designated by the Service Provider management in accordance with the manufacturer's recommendations. All cranes must have load charts in cabs.

All mobile cranes will have a current Washington State Department of Labor and Industries Mobile Cranes/Derricks Worksheet for Construction Industry.

All mobile cranes operators must be trained and certified through a valid accrediting agency for the specific type of equipment that is being operated.

- When working inside the factory, it is mandatory to coordinate with Crane Operations and Crane Dispatch prior to any activity in the above illustrated Overhead Crane Space
- Cordon off the crane's activity area and ensure no employees will be under a suspended load or inside the angle of a hoist line.
- No employees will stand or work near a cable, chain, or rope under tension unless the nature of the work requires it.
- Underground utilities at the location shall be identified and considered as well as ground compaction.
- A properly trained representative appointed by the Service Provider shall inspect and document all rigging equipment prior to each work shift. Any rigging equipment found to be defective or damaged shall be immediately removed from use and the project site.
- Chain slings shall not be used for lifting operations unless specifically designed for a unique application and approved by a properly trained inspector or rigging specialist.
- Tag lines should be used on all hoisted loads to control the load, unless it is determined that the tag lines would pose a greater risk to the safety of the load.

If a lift is to be performed over an occupied building, a registered structural engineer shall review and certify that the building can withstand the impact of the load being dropped on the building due to a crane or rigging failure. If the structural engineer cannot determine if the building can withstand the impact of a dropped load, or if the structural engineer determines that the building cannot withstand the impact of a dropped load, either the building areas that would be affected shall be evacuated during the lift, or the lift shall be scheduled when there will be no personnel in those areas of the building. The decision between evacuating the building or scheduling the lift for off-hours will be made by EHS with input from all affected parties.

Outdoor mobile crane use may require notification to the Federal Aviation Administration. Contact your Boeing OAR prior to mobilizing a crane.  
Additional coordination is required

Operations should not commence or continue if winds exceed manufacturer's requirements or 20 MPH. If a personnel lift platform is used, this restriction is limited to a maximum of 15 MPH.

**6.30.4 Critical Lifts:** In addition to regulatory defined critical lifts, Boeing defines a critical lift one that could cause more than \$250,000 in damage.

When a critical lift is conducted a package with the following documentation will be prepared by the Service Provider and submitted to the Boeing OAR upon request:

- Copy of the Mobiles Cranes/Derricks Worksheet
- Copy of the operator's certification card
- Copy of the rigger's certification card
- Copy of the signal person's certification card
- A documented lift plan that states:
  - Names and roles, including lift director
  - A site drawing with radius and distance
  - A copy of the load chart
  - Type of rigging and rigging plan

**6.30.5 Aerial Platform Lifts:** Daily and pre-shift inspections must be performed and documented for all mobile equipment by the operator or other properly trained representative designated by the Service Provider management in accordance with the manufacturer's recommendations.

Add: All motorized material handling equipment must have service providers company name and 24-hour contact phone no.

### **6.31 Required Postings**

The Service Provider will post the following information:

- Required PPE
- Close proximity plans
- Job Safety Analysis (JSA) or Project Specific EHS Plan
- Emergency Evacuation Plan
- Asbestos Determination/Good Faith Inspection (GFI)
- Job-site Contacts (Superintendent, Boeing OAR, Company Safety Representative)

Where posting is not practical, e.g., activities performed on the airplane these materials need to be on the work site.

### **6.32 Close Proximity Work Plans**

A Close Proximity Work Plan will be completed before any work within fifteen feet or directly above an aircraft and/or major components begins. These plans apply to all operations within a 15' envelope of all surfaces and/or directly above Boeing's airplanes, major airplane components, or high value product (HVPs).

Complete the JSA for working within 15-feet of aircraft or major airplane components that minimizes production disruptions, ensures communication

between the affected parties, and effectively isolates the work area from Boeing products.

See APPENDIX C. CLOSE PROXIMITY WORK PLAN

### **6.33 Low-Powered Visible Lasers**

Laser classes 3B invisible, 3R invisible and 4 are not allowed on site without prior authorization by the Everett Site Laser Safety Officer.

Laser control measures need to be coordinated with the Everett Site Laser Safety Officer and may include:

- The laser control area shall be posted with the appropriate warning signs.
- The beam shall be controlled; it should not extend across walkways, it should be used above or below eye-level and it shall be terminated at the end of its useful path.

Notify Everett EHS of any intent to buy, build, borrow, loan, trade, sell, scrap or surplus any Boeing owned laser.

Service Provider training shall meet ANSI Z136.1 for Safe Use of Lasers.

### **6.34 Hazardous Materials**

If the Service Provider brings hazardous materials on site for use in aircraft production, the Service Provider should coordinate with the Boeing OAR and track hazardous material usage and storage in the Boeing hazardous material electronic tracking system, HazTrax. The HazTrax system satisfies the EHS tracking requirements for the inventory and usage of hazardous materials.

The service provider shall report to Boeing EHS at least monthly:

- The product name, manufacturer, Boeing SDS number;
- Container size and type (e.g. 12-ounce aerosol can, 1 pint can);
- The number of containers stored on site during the period covered by the report;
- Storage temperature and pressure of the containers if other than ambient (in most instances storage temperatures and pressures are ambient); and
- The number of containers used during the period covered by the report.

Further definitions and explanations are found in PRO- 2610 (Hazardous Materials and Regulated Waste Management). Contact Environmental Affairs for a copy of this procedure.

### **6.35 Hazardous Waste and Solid Waste Handling and Disposal**

**6.35.1** Written Plan Requirements: If a written plan is required by Section

5.3.a of the Service Provider Manual, the plan shall be submitted by the Service Provider to Everett Environment in addition to the Boeing OAR. The plan shall document management of hazardous waste before the start of any work.

**6.35.2 Hazardous Waste Training:** All Service Provider employees generating and/or managing hazardous wastes must have documented Hazardous Waste Training in compliance with WAC 173-303-330. Annual refresher training must also be documented. Training shall include: how to identify hazardous waste, container management, and emergency procedures in case of spills or other types of releases.

**6.35.3 SDS Requirements for Waste Analysis:** The Service Provider shall identify all possible materials used and SDSs shall be provided to Everett Environment for waste analysis. Waste mixtures likely to be generated, with estimated monthly or more frequent volumes, shall be made available to Everett Environment to facilitate management and disposal.

It is important that Service Providers ask before taking action on hazardous waste. Incompatible materials, spills, and incorrect containers are issues which have happened. Contact Everett Environment with questions.

**6.35.4 Hazardous Waste Labels and Container:** Service Providers must coordinate disposal of hazardous waste through Boeing HazMat and Everett Environment. All hazardous waste must be disposed by Boeing. Containers and labels for hazardous waste are available from Boeing HazMat.

For jobs generating large quantities of hazardous waste that require tanker trucks or roll-off containers, contact Everett Environment for assistance.

Service Providers must transport drums to the Boeing HazMat main central accumulation area when they are full or within 60 days of their accumulation start date, whichever comes sooner. The main central accumulation areas are: Everett – 40-15 HazMat building; Everett Modification Center – 45-334, Bay 1 (inside the NE corner).

Many common wastes that Service Providers generate must be handled properly:

- Used lamps/bulbs must be in closed containers, labeled as “USED LAMPS” and disposal coordinated with HazMat.
- For large re-lighting projects, contact HazMat and Everett Environment for special instructions.
- Non-Empty Aerosols are Hazardous Waste when disposed.
- Legally empty containers are not hazardous waste.
- Used batteries cannot go in the trash.
- Battery collection containers are located throughout the site; coordinate with the Boeing OAR.
- You must coordinate hazardous waste disposal with HazMat.

Do not drop off hazardous waste at the HazMat central accumulation areas without proper coordination.

**6.35.5 Solid Waste Management:** Small construction projects use many building materials that can be recycled by Service Providers.

The list of acceptable recyclable materials are as follows – wood (non-painted), metal, steel and wire, drywall/sheetrock, cardboard and paper, hard plastics, film plastics, ceiling tiles, windows and framing, carpet and concrete, asphalt, rock, masonry, sand and dirt.

- Separate solid waste from recycled materials.
- Label recycled materials as “CDL”
- Material handling will look for a transportation tag that identifies the material as either solid waste or CDL.

### **6.36 Suspect Materials**

The Service Provider must include the following provisions in their project-specific EHS plan as applicable.

The Service Provider shall comply with all federal, state, and local requirements pertaining to asbestos

Before the Service Provider performs any work on site, the Service Provider and Boeing OAR must comply with the asbestos determination requirements established by Boeing’s Northwest Regulated Materials Management (NORMM) group (see <https://asbestos.web.boeing.com/> for details). These requirements include, but are not limited to, the following:

- Based on the Service Provider’s scope of work, the Service Provider and Boeing OAR shall complete steps 1 through 3 (as applicable) of NORMM’s asbestos determination steps. An asbestos predetermination letter (from Step 2, if applicable) or the results of a full asbestos determination completed by NORMM (from Step 3, as applicable) shall be provided to the Service Provider.
- The predetermination letter or NORMM’s written asbestos determination must physically be posted by the Service Provider at the work site.
- The Service Provider and its workers are prohibited from disturbing any building material (e.g., cutting, drilling, removing, breaking up) before the asbestos determination steps are completed, any necessary documentation has been posted at the work site, and NORMM has confirmed that any necessary asbestos abatement has been completed.
- The Service Provider and its workers are prohibited from disturbing any building materials which have been identified in NORMM’s written asbestos determination as asbestos-containing material or suspect asbestos-containing material.
-

All Service Provider personnel who perform work that might inadvertently result in the disturbance of asbestos-containing material must have documented asbestos awareness training.

All personnel who have received authorization from Boeing to perform asbestos abatement must have the appropriate federal, state, and/or local asbestos abatement certifications.

If the Service Provider discovers a possible asbestos disturbance or new suspect asbestos-containing material during the project that was not evaluated in NORMM's written asbestos determination, or the scope of work has changed after steps 1 through 3 of the asbestos determination process was first completed, work shall stop immediately and the Service Provider must notify the Boeing OAR to determine the next course of action.

### **6.37 Air Quality**

**6.37.1 Written Plan Requirements:** If a written plan is required by Section 5.5a of the Service Provider Manual, the plan shall be submitted to Environmental Affairs in addition to the Boeing OAR.

The plan must ensure compliance with all applicable air quality regulations and any applicable provisions of any air quality orders, permits or approvals issued to Boeing Everett, including but not limited to the Boeing Everett Air Operating Permit (AOP No.13120). The Boeing Everett Air Operating Permit is available at: <https://www.pscleanair.org/DocumentCenter/View/225/Air-Operating-Permit-PDF?bidId>

If Service Provider activities include performing any of the activities described below, the written plan must address the applicable requirements as described below.

**Cleaning and Coating of Aerospace Components** Cleaning and coating of aerospace components is strictly regulated. These activities may not be performed without prior written approval from Everett Environment.

If approval from Everett Environment is obtained to perform cleaning and coating of aerospace components, the Service Provider must comply with all applicable air quality requirements related to aerospace cleaning and coating operations, including, but not limited to:

- If the Service Provider plans to bring any products on site that will be used for cleaning or coating of aerospace components, the Service Provider shall first submit a list of all such products, along with their SDSs, to the Boeing OAR and Everett Environment for approval. The list shall include the name of the product and a short

description of how the product will be used. The Service Provider must also submit a monthly report to the Boeing OAR and Everett Environment that summarizes the amount (in gallons) of each product used in the previous month.

- All coatings regulated by the Aerospace National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63 Subpart GG) and Puget Sound Clean Air Agency Regulation II, Section 3.09 must comply with the applicable volatile organic compound (VOC) and organic hazardous air pollutant (organic HAP) content limits as specified in those rules.
- The amount of any solvent added to coatings for thinning purposes must not exceed that allowed by the applicable BMS specification or by the instructions on the coating container.
- Cleaning solvents shall comply with the applicable requirements in the Aerospace National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63 Subpart GG)
- Rags contaminated with solvents and coatings shall not be left unattended. All coating and solvent contaminated rags shall be stored and disposed of in closed containers.
- No spray coating, other than spray coating using hand-held, non-refillable aerosol cans, may occur without prior approval from EHS.
- Containers with paints, solvents, and other materials containing volatile organic compounds or organic HAP shall remain closed except when material is being added, mixed, or removed from the container.

**Non-Production Spray Coating Operations:** The following non-production spray coating operations (i.e. spray coating operations not performed on airplane parts) may be conducted by Service Providers without prior approval from Everett Environment:

- Application of architectural or maintenance coatings to stationary structures (e.g. buildings, stationary equipment, paved surfaces).
- Spraying with hand-held aerosol cans with a capacity of 1 quart or less.
- The use of air-brush spray equipment with 0.5 to 2.0 CFM airflow and a maximum cup capacity of 2 fluid ounces.
- No other non-production spray coating may occur without prior written approval from Environmental Affairs.

The above activities do not need to be conducted in an approved spray coating area.

The coating of motor vehicles (e.g. cars, trucks) and mobile equipment (e.g. forklifts, tooling on wheels) by Service Providers may not be performed without prior written approval from Everett Environment.

**Bondo Application Operations:** The use of resins containing styrene

on composite airplane parts and/or tooling is strictly regulated. This activity may not be performed without prior written approval from Environmental Affairs.

Common types of resins containing styrene that are used at Boeing are:

- All bondo qualified under BMS 5-136 (e.g. Ad-Tech 15-3, PE-6010, PE-6013)
- White Diamond Body Filler
- Ad-Tech Ultra Filler #14
- APF #4 White Filler

### **Havamold and Other Styrene-Containing Sheet Molding Compound**

**Operations:** The use of “Havamold” and other sheet molding compounds (SMCs) that contain styrene is strictly regulated. This includes SMCs qualified under BMS 8-197 and BMS 8-225. This activity may not be performed without prior written approval from Everett Environment.

**Use of Portable or Transportable Engines:** For purposes of this document, a portable or transportable engine is an internal combustion engine that, by itself or in or on a piece of equipment, is designed to be and capable of being carried or moved from one location to another.

Indications of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, or trailer.

Examples of portable or transportable engines include engines used to power:

- Portable generators
- Portable compressors
- Light stands
- Air conditioning carts
- Hydraulic mule carts
- Air start carts
- Refrigerated trailers

Engines that are in or on a piece of equipment that is self-propelled (e.g. motor vehicles, mobile cranes, bulldozers) or is intended to be propelled while performing its function are NOT considered portable or transportable engines.

Service Providers must comply with the following requirements when using portable or transportable engines:

- Residence time limit: The engine must not remain at the same location for more than 12 consecutive months (or a shorter period of time for an engine located at a seasonal source), other than at locations used strictly for storage. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced must be included in calculating the consecutive time period.
- Notification requirement: Prior to bringing any engine (including

rentals) on site with a maximum rated brake horsepower greater than 500 bhp (or a group of engines which will be used together and have a cumulative maximum greater than 500 bhp), the Service Provider must notify the Boeing OAR and obtain approval from Environmental Affairs.

- **Fuel Standards:** All engines must use ultra-low sulfur diesel or ultra-low sulfur biodiesel (i.e. diesel or biodiesel with a sulfur content of 15 ppm or 0.0015% sulfur by weight or less), gasoline, natural gas, propane, liquefied petroleum gas (LPG), hydrogen, ethanol, methanol, or liquefied/compressed natural gas (LNG/CNG).

**Work performed on refrigerant-containing appliances:** If the Service Provider will be performing any work related to the maintenance, service, repair, or disposal of refrigerant-containing equipment that could be reasonably expected to violate the integrity of the refrigerant circuit and therefore release refrigerants into the environment, then the Boeing OAR and/or Boeing procurement agent must first notify, and obtain approval from, Everett Environment. If approval is granted, the Service Provider must comply with all applicable federal and state requirements related to refrigerant management requirements found in 40 CFR Part 82 Subpart F, 40 CFR Part 84 Subpart C, WAC 173-443, and any other applicable federal or state regulation related to refrigerant management. This includes, but is not limited to, venting prohibitions, leak repair requirements, and technician certification requirements. In addition, the Service Provider must complete an Refrigerant Compliance Management (RCM) Service Order Form (or other documentation with the same information provided on the RCM Service Order Form) each time they complete any maintenance, service, repair, or disposal of refrigerant-containing equipment and must submit those forms to the Boeing OAR, procurement agent, or GREF Vended Services within 3 business days of completing work on the equipment. The Boeing OAR, procurement agent, or GREF Vended Services must immediately forward these records to the Everett GREF HVAC technician responsible for inputting and maintaining records in the RCM system.

### **6.38 Water Quality Written Plan Requirements**

If a written plan is required by Section 5.6.a of the Service Provider Manual, the plan shall be submitted to Everett Environment in addition to the Boeing OAR.

## **GENERAL INFORMATION**

### **Sanitary Sewer and Wastewater Discharges:**

- If Service Provider activities produce wastewater discharges, the Service Provider must send the following to sanitary sewer – steam condensate, MOP water, cooling tower water, street sweeper wastewater, potable water, fire protection system maintenance water, water with any detergent, degreaser or soap, water from draining water heater or chiller tanks, water from disinfecting water lines, and quenching water.
- The Service Provider shall coordinate disposal on the following wastewater discharges with Everett Environment – pressure washing and other wash waters, excavation dewatering wastewater, equipment cooling water, building cooling system water containing glycol, concrete related wastewater, slurry materials and waste from shaft drilling, wheel wash or tire bath wastewater, water contaminated with fuels/oils, solvents, soaps or other pollutants, and any process wastewater.

### **Flightline Concrete Work/PCBs:**

No concrete related work can occur by Service Providers on the Everett Flightline without prior coordination with Everett Environment due to Polychlorinated Biphenyls (PCB) contamination of joint sealant, surrounding concrete and underlying soilfill.

Areas of the Everett Flightline contain PCBs. Any pressure washing work must be coordinated with Everett Environment.

### **Oil Containers and Tanks:**

The Service Provider shall contact Environmental Affairs for specific tank requirements prior to bringing on-site. Oil containers of 55 gallons or more must be stored in secondary containment regardless of location.

### **Boeing Everett Site Specific Requirements:**

- Containers with less than 55 gallons shall have secondary containment in the following locations:
  - All liquid hazardous material and petroleum product outdoor storage areas. Storage areas indoors must be within containment or at least 25 feet from exterior doors.
  - Any areas where stationary mobile-fueled equipment (i.e., generators, light stands, and heaters) is being used.
- Oil-handling personnel shall be trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the

facility SPCC Plan per 40 CFR 112. Training must be documented and available upon request.

### **Cover Trash and Metal Scrap Materials:**

- Trash, scrap metal, recycling, and compost shall be stored in leak-proof containers under cover or with a storm-resistant lid that remains closed unless actively loading or unloading material.
  - Containers with holes or defects shall be taken out of service.
  - Cover piles or containers of exposed soil or fill material.
  - Stockpiles of galvanized materials (e.g., scaffolding, fencing, etc.) shall be covered.

### **Zinc and Copper:**

- Bare galvanized metal or copper shall not be used for materials that convey stormwater, such as roofs, canopies, siding, gutters, downspouts, roof drains, and pipes.
- New chain link fencing, including posts and rails, installed in outdoor areas must be vinyl or powder coated. Exceptions to this shall be approved by Everett Environment. Temporary construction fencing can be uncoated, bare galvanized, fencing if vinyl or powder coated fencing is not available.
- Areas with heavy vehicle traffic shall be swept regularly to remove tire wear and brake pad dust.

### **Scraping Operations:**

- All scraping operations must occur in a designated scraping area. Contact Everett Environment prior to starting any scraping operations.

### **Outdoor Painting:**

- The ground under the area proposed for paint removal, sanding, or painting must be covered. Failure to do so can result in uncontained sprayed paint particulates or debris ending up on the pavement. If feasible, enclose the area being proposed for paint removal or painting.
- Prohibit outside spray-painting, blasting, or sanding activities during windy and rainy conditions that render containment ineffective.
- Capture and contain any process wastewater. Process wastewater cannot comingle with stormwater or enter storm drains; it is considered a prohibited discharge. Contact Everett Environment for disposal instructions.

- Handle and dispose of all pollutants, including waste materials and debris, that occur on site in a manner that does not cause contamination of stormwater.

#### **Pesticide Use:**

- Control pesticide application to prevent contamination of stormwater. Develop and implement an Integrated Pest Management Plan. Carefully apply pesticides, in accordance with label requirement.

#### **Industrial and Construction Stormwater Permit Coverage Requirements:**

- The Everett Site operates under an Industrial Stormwater General Permit issued by the Washington State Department of Ecology. If the project is greater than 1 acre in size, the Everett Site operates under a Construction Stormwater General Permit issued by the Washington State Department of Ecology.

For general and specific permit information, Service Providers should review the following documents:

[Construction Stormwater General Permit](#)

[Industrial Stormwater General Permit](#)

#### **Washington State Stormwater Training**

In accordance with the State of Washington 2025 Industrial Stormwater General Permit (ISGP) requirement in section S3.B.4.b.i.5, you must provide the following training to all service providers and subcontractors under your direction within 30 days of them initially performing work at a Boeing site in Washington State that has the potential to impact stormwater quality. This training may be provided individually or to a group in a presentation setting.

Work that may impact stormwater quality includes but is not limited to: (i) construction, manufacturing, and repair work outdoors, (ii) all work outdoors that involves use of liquid materials (e.g., paint, solvents, etc.) or chemicals, (iii) staging or temporary storage of materials outdoors, or (iv) use of materials that has the potential to contribute pollutants to stormwater.

As the service provider, you must retain training records for five years for all service providers and subcontractors. The records must include the name of the person receiving training and the date of the training. You must also make the training records available upon request.

### **What is Stormwater?**

Stormwater is defined as rainfall and snow/ice melt.

### **Where Does it Go?**

Stormwater that does not soak into the ground is collected in catch basins and travels through drainages, ditches or underground pipes that discharge into ponds, lakes, streams, rivers or other nearby water bodies.

### **Why Should I be Concerned?**

As an Onsite Service Provider performing work that has the potential to impact stormwater quality, **you have the potential to prevent contamination of stormwater by ensuring the applicable Best Management Practices (BMPs) are implemented. You are the first line of environmental protection.** Stormwater run-off can collect contaminants as it moves across a site and carry them into the nearby water bodies.

Contaminated stormwater negatively impacts drinking water; human health; fish, wildlife and other aquatic organisms; and recreational water uses.

This training will help ensure that your activities do not result in pollutants impacting stormwater.

### **Stormwater Discharge Permits**

Stormwater pollution prevention is required by the Clean Water Act through the Washington State Industrial Stormwater General Permit (ISGP).

The ISGP prohibits discharge of anything other than stormwater and snowmelt to the stormwater system. Some exemptions may apply; Contact the OAR for more information.

The ISGP requires facilities to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to:

- Identify potential sources of pollution at the site
- Describe control measures that are used to reduce or eliminate pollutant sources

The SWPPP contains a site map, a detailed assessment of the facility, a detailed description of the BMPs, Spill Prevention and Emergency Cleanup Plan, and a sampling plan.

### **Best Management Practices (BMPs)**

- Best Management Practices (BMPs) are schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of stormwater.
- Best Management Practices are required by the ISGP.
- Source control BMPs – prevent pollutants from entering stormwater
  - Spill response procedures
  - Good housekeeping practices (e.g., vacuum sweeping - both street and manual, closing dumpsters after use, dust control plans, tire storage under storm resistant cover)
  - Maintenance procedures and programs
    - Remove leaking equipment and vehicles from service and prevent leaks from spilling on the ground until repaired.
  - Materials management practices
  - Inspections and follow-up
  - Training/education
- Treatment BMPs– remove pollutants from stormwater
  - Ponds
  - Separators
  - Filters

### **You Are the First Line of Protection**

- Remember, everyone has the potential to impact stormwater. See something, say something.
- Keep your car properly maintained.
- Do not litter.
- Do not pour anything into the storm drain or sanitary sewer (some exemptions may apply); Additional coordination is required; contact the OAR.
- Follow spill response procedures. Report leaks or spills to Boeing OAR and Boeing Emergency Number.

## Potential Sources of Stormwater Pollution

Activity	Potential Source	What should you do (i.e., Best Management Practices)?
Good Housekeeping Practices	Garbage, cigarettes, ear plugs, debris, open dumpsters, unbagged waste	<ul style="list-style-type: none"> <li>• Ensure good housekeeping practices occur in your area and pick up FOD/trash/debris.</li> <li>• Cover outdoor containers with storm-resistant lids.</li> <li>• Clean up and properly dispose of waste in designated garbage bins/dumpsters.</li> </ul>
Outdoor Painting	Paint, dust, liquids, solvents	<ul style="list-style-type: none"> <li>• Perform outdoor painting on days with dry weather</li> </ul>
Landscaping	Erosion, pesticides, etc.	<ul style="list-style-type: none"> <li>• Only use pesticides approved by EHS. Provide SDSs to your site OAR for approval.</li> <li>• Control erosion, dirt/soil, dust, sediment, debris.</li> </ul>
Automotive/Equipment Maintenance	Various	<ul style="list-style-type: none"> <li>• Properly maintain vehicles/equipment. For example, company vehicles must use drip pans under equipment prone to leaks.</li> <li>• Perform repairs indoors if not actively leaking. If leaking, contain the leak then move indoors.</li> <li>• Promptly clean up all spills and clean up area before and after work.</li> </ul>
General Maintenance, Outdoor Construction or Demolition (i.e., track out, erosion, dewatering, concrete slurry, sanding, etc.)	Dirt/Soil, Dust, sediment, debris, erosion	<ul style="list-style-type: none"> <li>• Follow site-specific best management practices (BMPs).</li> <li>• Control erosion, dirt/soil, dust, sediment, debris.</li> <li>• Contain, collect, and properly dispose of process water generated from activities including pressure washing of buildings, streets, equipment, concrete slurry; etc.</li> <li>• Perform activities in designated areas. Contact the OAR. <u>Additional coordination is required.</u></li> <li>• If your activity will generate water, contact the OAR. <u>Additional coordination is required.</u></li> </ul>
Outdoor storage of materials and equipment (i.e., Person lifts, hydraulic jacks, aerostands, and other machinery, diesel powered light stands)	Uncovered material in outside containers, tub skids, uncovered metal, stock, rust, metal dust (tires and brake wear), leaking engine oil, fuel, coolant	<ul style="list-style-type: none"> <li>• Cover stored material and galvanized equipment (e.g., scaffolding not in use).</li> <li>• Store materials and equipment in covered or contained areas.</li> <li>• Store tires under cover or in storm-resistant shelters. Consider fire department restrictions if storing more than one tire indoors.</li> <li>• Properly maintain personal and company vehicles/equipment. For example, company vehicles must use drip pans under equipment prone to leaks. Personal vehicles must be taken offsite immediately once a leak is identified.</li> <li>• Ensure generators, grease containers, and hydraulic carts are double walled if storing oil.</li> <li>• If generators will be staged for over 6 months, contact the OAR. <u>Additional coordination is required.</u></li> </ul>
Spills (i.e. material loading/unloading activities, and storage)	Liquids, solids, powders, fuel	<ul style="list-style-type: none"> <li>• Prevent spills and follow spill response process. Report leaks or spills to OAR and if unable to clean up yourself call the Boeing Emergency Number.</li> </ul>
Pressure washing or water generating activities	Liquids	<ul style="list-style-type: none"> <li>• If your activity generates water in advance, contact the OAR. Additional coordination is required. Water that needs to be managed can include discolored water, water coming from a container, secondary containment, etc.</li> <li>• Wash aircraft, vehicles, and equipment in designated areas. Contact the OAR. <u>Additional coordination is required.</u></li> </ul>
Use of chemical, detergents, deicing activities, Oil/hydraulic/fueling activities	Liquid, granular deicer, sand and Various, oil, hydraulic fluid, fuel	<ul style="list-style-type: none"> <li>• Stage liquid materials in properly maintained secondary containment and any liquid transfers occur in the secondary containment.</li> <li>• Only use chemicals, detergents and deicers in designated areas. Contact the OAR. <u>Additional coordination is required.</u></li> <li>• Perform deicing activities in designated areas. Contact the OAR. <u>Additional coordination is required.</u></li> </ul>
Manufacturing	Various, dust, liquids, etc.	<ul style="list-style-type: none"> <li>• Perform activities inside or in designated areas. Contact the OAR. <u>Additional coordination is required.</u></li> </ul>

# Boeing Everett, Bomarc (45-70), Paine Field Leased Areas, Everett Modification Center (EMC)

**EHS-Environment Stormwater Focal Contact Information**

DL-EvtStormwater@exchange.boeing.com

**SPILL RESPONSE!**

- Small spill – Clean up; notify Boeing OAR
- Large spill – Everett Site & Flightline Emergency: **1-844-898-6644**
- All other locations – **911**

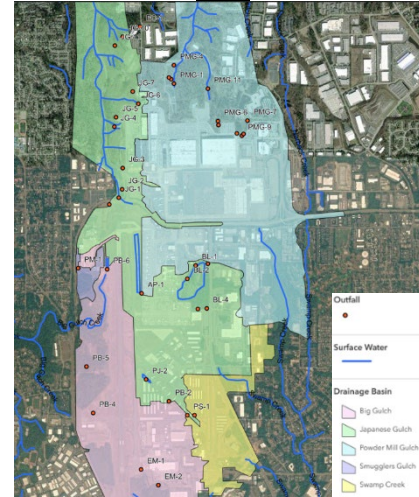
**Site Description**

Stormwater from the sites listed above discharge to one of five drainage basins – Big Gulch, Japanese Gulch, Powder Mill Gulch, Smugglers Gulch, or Swamp Creek.

The storm system is comprised of:

- Catch basins and Manholes
- Oil Water Separators
- Vegetated Swales/Bioswales
- Diversion or Shut-off Valves
- Sedimentation and Detention Basins
- Enhanced Media Filter (EMF)

**Map**



**SWPPP Contents**

The Boeing Everett Environment department maintains the Stormwater Pollution Prevention Plans (SWPPPs). A copy of the SWPPP can be provided upon request. Contact the OAR for additional information.

The site SWPPPs include:

- Assessment of current site activities that may impact stormwater.
- Best Management Practices (BMPs) for the prevention or treatment of stormwater pollution.
- A facility map and detailed assessment of the facility.
- Spill Prevention and Emergency Cleanup Plan (SPECP).
- A stormwater sampling plan, ISGP permit-required reports and submittals, and location of on-site documentation.
- Reportable Spill and Leak History.

**Site-Specific BMPs**

- Safe Drain Inserts: Identified by a painted yellow border around the catch basin and requires a specialized tool to close the drain during spills.
- Deicing: Sodium chloride, urea, and ammonium sulfate are prohibited. Only Everett Delivery Center-approved liquid deicers may be used on the Flightline. Granular deicers or traction materials require Everett Delivery Center approval.
- Scrapping Operations: All scrapping must occur in approved areas. Equipment with oil components must be drained before scrapping. Used absorbent and waste oil must be managed as hazardous waste.

## REFERENCES

Documents referenced are available from the Boeing Procurement Representative:

- Everett Air Operating Permit (PSCAA AOP No. 13120). The permit is available at:  
<https://www.pscleanair.org/DocumentCenter/View/225/Air-Operating-Permit-PDF?bidId>
- [Fall Protection in Washington State](http://wisha-training.in.wa.gov/training/presentations/CompChartFallProtReqts.pdf)  
<http://wisha-training.in.wa.gov/training/presentations/CompChartFallProtReqts.pdf>
- [D950-11544-1 \(“Enterprise Factory Automation Safety Program \(E FASP\) Manual](#)
- [D6-85752](#) Standard for Access to the Safeguarded and Restricted Space of Industrial Robots
- [RC-025G](#) – Aircraft Hazardous Energy Control Manual
- [RC-032G](#) – Safe Entry of Autoclave
- [D6-83865](#) Everett Traffic Safety and Regulation



APPENDIX B

# PRE-DIG CHECKLIST



## Check Before You Dig Check List

Shared Services Group | Site Services | Operational Excellence

\$ Level	Utilization
\$30K to \$100K	Required
\$100K to \$500K	Required
\$500K to MP	Required
MP +	Required

Home

Project name:

Project manager:

**Caution: Before digging, please check with your site Environment, Health, and Safety (EHS) representative.**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Existing site utility information reviewed with Site Plan created<br/><input type="text"/></li> <li><input type="checkbox"/> Using org and business partner notified of location and schedule<br/><input type="text"/></li> <li><input type="checkbox"/> Locations of underground utilities established and marked<br/><input type="text"/></li> <li><input type="checkbox"/> Checklist and Site Plan finalized<br/><input type="text"/></li> <li><input type="checkbox"/> Onsite review and job walk completed by Boeing rep and contractor<br/><input type="text"/></li> <li><input type="checkbox"/> Method(s) used to locate underground utilities entered below<br/><input type="text"/></li> <li><input type="checkbox"/> Name and phone number of locator representative entered below<br/><input type="text"/></li> </ul> | <p><b>All assigned workers have been briefed or instructed on the following</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The location of the excavation.</li> <li><input type="checkbox"/> The type (or types) of the excavation.</li> <li><input type="checkbox"/> Hand/dig probe (minimum of 24" of utility markings)<br/><input type="text"/></li> <li><input type="checkbox"/> Workers know how to contact Emergency Services and Boeing rep<br/><input type="text"/></li> <li><input type="checkbox"/> Estimated excavation duration (open to close) noted: <input type="text"/> days<br/><input type="text"/></li> <li><input type="checkbox"/> Surface encumbrances (e.g., walkways, tanks, fences) noted below<br/><input type="text"/></li> <li><input type="checkbox"/> Walkway required for crossing and/or traffic control<br/><input type="text"/></li> </ul> |
|---|---|

**Check all utilities that the excavation will affect**

<input type="checkbox"/> Electric (Red) <input type="text"/>	<input type="checkbox"/> Sewers (Green) <input type="text"/>
<input type="checkbox"/> Gas (Yellow) <input type="text"/>	<input type="checkbox"/> Communications (Orange) <input type="text"/>
<input type="checkbox"/> Water (Blue) <input type="text"/>	<input type="checkbox"/> Reclaimed Water (Purple) <input type="text"/>
<input type="checkbox"/> Other <input type="text"/>	

Pertinent shutoff valves and switches located. *Note: Lockout, Tag, and Try requirements apply if any valve or switch is closed.*

Specific safety plan elements for unique project concerns.

**APPENDIX C**

**CLOSE PROXIMITY WORK PLAN**

<b>GENERAL INFORMATION</b>		
Company Name	Address	Phone Number
Project Name	Projected Start Date	Projected End Date
Project Location (City, State)	Building Number	Floor / Column Number
Describe exact scope of work		
Why is it necessary to perform this work with the plane/component in position?		
Is there a shift/window available when the plane/component is away from the work area? No Yes If yes, when?		
Proximity to Boeing Property: Above/Over:                      Under/Around:                      How Close:		
Complete the JSA for working within 15-feet of aircraft or major airplane component(s) that minimizes production disruption(s), ensures communication between the affected parties, and effectively isolates the work area from Boeing product(s).		
Task Description:	Hazard Description:	Hazard Control:
Was a Close Proximity Work Plan walk performed with the Boeing Onsite Activity Representative and Boeing Area Supervisor conducted prior to start of work Yes _____ No _____ Required signatures prior to start of work: Service Provider Supervisor: _____ Date: _____  Service Provider EHS: _____ Date: _____  Service Provider Site Manager: _____ Date: _____  Boeing Area Manager for Airplane Program: _____ Date: _____  Boeing Onsite Activity Representative: _____ Date: _____		

**APPENDIX D**

<input type="checkbox"/> ELECTRICAL	<input type="checkbox"/> PLUMBING	<input type="checkbox"/> MECHANICAL	<input type="checkbox"/> GAS	<input type="checkbox"/> FIRE Main
Date:		Job Title:		Job Number:
Requested By:		Contractor/Grp:	Contact Phone #:	
Technician:		Contractor/Grp:	Contact Phone #:	

**BOEING PROJECT RESPONSIBILITY:**

Name:	Contact Phone #:	Org:
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**SHUTDOWN INFORMATION:**

Start/End Date:	Start Time:	Comp Time:
Bldg./Floor:	Column:	Add'l Description:

Reason and Details:

Impact:

Computing Notes:

Maintenance Concurrence:	Signature	Name	Phone Number
Business Partner Concurrence:	Signature	Name	Phone Number
(If additional organizations are impacted, please use an additional sheet of paper for signatures)			

**People to be Cc'd:**

**SNAP NUMBER:**

\*Please supply Outage Coordination Electrical Panel Schedules if applicable  
 Responsible Craft (Boeing/Partner): Just before and after the utility shutdown call **877-366-3330 option 21** and give the SNAP number.

Other groups requiring notification before and after the shutdown: Facilities Dispatch 206-544-6500/ Fire Department  
 Security Dispatch 206-655-8800

# RADIO REQUEST

## Contractor Communications Request

### Frequency Management Services

#### Purpose

This form must be completed for Boeing Contractors and approved by Boeing Frequency Management Services before transporting and operating radio communication equipment (voice or data) or other radio devices on Boeing property. This includes FCC licensed or unlicensed equipment. Generally, cellular or other mobile telephones are permitted without authorization; however some areas are strictly prohibited. Consult with your appropriate Boeing Point of Contact.

#### Instructions:

**Step 1.** Fill out this section.

**Contractor Company Name:** \_\_\_\_\_  
**Contractor Point of Contact Name:** \_\_\_\_\_  
**Contractor POC Phone:** \_\_\_\_\_

**Boeing Point of Contact Name:** \_\_\_\_\_  
**Boeing POC Phone:** \_\_\_\_\_  
**Project Name:** \_\_\_\_\_

**Boeing Job Site, Building, Facility Name:** \_\_\_\_\_

**Date radios will begin operations:** \_\_\_\_\_  
**Date radios will cease operations:** \_\_\_\_\_

**Contractor License|Call Sign(s):** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Step 2.** Attach a copy of your applicable FCC license(s)

## Contractor Communications Request

### Frequency Management Services

**Step 3.** Fill out radio equipment information.

#### Radio Equipment Information

Frequency	Station Class	Emission	Power (W)	# of Radios	Radio Manufacturer & Model

Base Station Location - \_\_\_\_\_  
Area of Operations (KM or Miles Radius) \_\_\_\_\_

**Step 4.** Make a copy for your office records. Return this form to your Boeing Point of Contact who will return the form to Boeing Frequency Management Services by email, company mail or FAX.

Address: The Boeing Company  
Frequency Management Services M/C 2T-22  
Attention: Nate Miller  
P.O. Box 3707  
Seattle, WA 98124-2207

Phone: 206-544-6045  
Fax: 206-662-0701  
Email: nathan.a.miller@boeing.com

**Step 5.** A letter of authorization with operating information and any restrictions will be sent to the Boeing Point of Contact. Contractors should make a copy for office records. Contractors should have a copy of the authorization letter and license at the job site. Any changes subsequent to authorization will require another request.

APPENDIX F

RESTRICTED MATERIALS LIST

	Hazardous Materials List		Restrictions
Prohibited	Asbestos		Prohibited at Everett Site
	Polychlorinated biphenyl (PCB)		
	ODS Class 1 and Class 2 substances		
	Silicone		Prohibited in all airplane production areas
Restricted	Beryllium	Methyl Ethyl Ketone (2-butanone)	Use is restricted to those hazardous materials where there is no technically feasible alternative. Boeing IH approval is required to use restricted material.
	Cadmium	Methyl Isobutyl Ketone	
	Carbon Tetrachloride	Nickel (and compounds)*, **	
	Chloroform	1 tetrachloroethylene or Perchloroethylene	
	Hexavalent chromium	Toluene (methylbenzene)	
	Dichloromethane or Methylene chloride or methylene dichloride	Trichloroethane	
	Lead (and compounds)	1 trichloroethylene	
	Mercury (and compounds)	Xylene (dimethyl benzene)	
Tracked	Cerium*	Aluminosilicate refractory ceramic fibers	IH Tracked materials must be reported to Everett EHS
	Perchlorate	Anthracene oils, paste and traction	
	Perfluorooctanoic acid PFOA	Diisobutyl phthalate	
	Naphthalene	Lead chromate	
	Sulfur hexafluoride	Lead chromate molybdate sulphate red	
	Polybrominated diphenyl ethers	Lead sulfochromate yellow	
	Cobalt and compounds*	Pitch coal tar high temp	
	Benzene	Tris (2-chloroethyl) phosphate	
	Cyanides	Zirconia aluminosilicate	
	Ethylene Glycol	Acrylamide	
	Aluminum (Fume or dust)*	PFOS Perfluorooctane sulfonate	
	Copper (Fume or Dust)*	Toluene diisocyanate	
	Zinc (fume or dust)*	Aluminosilicate refractory ceramic fibers	
	Musk xylene	Sodium chromate	
	4,4 diaminodiphenylmethane MDA	Potassium chromate	
	Short chain chlorinated paraffins	Ammonium Dichromate	
	Hexabromocyclododecane; alpha, beta, gamma	Potassium dichromate	
	Bis(2-ethylhexyl) phthalate DEHP	1 tetraboron disodium heptaoxide	
	Benzylbutylphthalate BBP	Disodium tetraborate, anhydrous	
	Dibutylphthalate DBP	Boric acid	
	Anthracene	Chromic acid and oligomers of chromic acid	
	Diarsenic trioxide	Chromium trioxide	
	Diarsenic pentaoxide	2-Ethoxyethanol	
	Sodium dichromate	2-Methoxyethanol	
	Bis(tributyltin) oxide TBTO	Cobalt (II) Diacetate	
	Triethyl arsenate	Cobalt (II) carbonate	
	Lead hydrogen arsenate	Cobalt (II) dinitrate	
	2, 4 Dinitrotoluene	Cobalt (II) sulphate	

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The Boeing Company 100 N.  
Riverside  
Chicago, IL 60606-1596 MC 7A-  
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