ENVIRONMENTAL REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

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INTRODUCTION

This document provides direction to all Contractors and Subcontractors working on Lockheed Martin property and U.S. Air Force Plant PJKS. Contractors and Subcontractors working on behalf of Lockheed Martin are reminded that this document is binding as a portion of their contract or subcontract, and that strict adherence is required. Contractors and Subcontractors hired directly by the U.S. Air Force are required to adhere to the conditions established in this document, although they may not be contractually bound to Lockheed Martin.

The document supplements the numerous Federal, State and Local environmental laws, regulations and permit requirements incumbent upon Lockheed Martin's property and operations. Contractors and Subcontractors are at all times required to maintain full compliance with those environmental laws, regulations and permit requirements. This includes environmental permits which have been issued directly to Lockheed Martin and the Air Force. Copies of these permits can be obtained from Astronautics Environmental Management (AEM).

Astronautics Environmental Management has the authority to immediately shut down any operation which is not compliant with environmental laws, regulations and permit requirements. When possible, shutdown would be ordered through the Lockheed Martin Project Manager or Construction Manager, or through the Lockheed Martin Contract or Subcontract Administrator. Under extreme circumstances involving immediate damage to human health or the environment, a shutdown may be made by AEM without consultation. Any shutdown of Contractor and Subcontractor operations due to their environmental non-compliance will be at the Contractor's and Subcontractor's expense. Lockheed Martin also reserves the right to recover costs associated with environmental clean-ups, costs associated with environmental damage, and costs associated with agency penalties for negligent acts by Contractors and Subcontractors.

All costs of maintaining compliance with environmental laws, regulations and permit requirements are to be included in the contract price. Contractors and Subcontractors are responsible for identifying, determining and including the reasonable costs for maintaining full compliance in their bids or proposals.

The Contractor's and Subcontractor's prime point of contact for any environmental matters except for emergencies is the Lockheed Martin Project Manager or Construction Manager. That person knows how to contact AEM if any question or need arises.

ENVIRONMENTAL MANAGEMENT BACKGROUND

Contractors and Subcontractors need to know the following key elements of Astronautics Environmental Management program, in addition to the other concerns in this document.

Environmental Protection Policy

It is the policy of Lockheed Martin Astronautics to conduct its business activities, and operations in a manner that protects public health, prevents environmental pollution, develops environmentally sound products, complies fully with applicable requirements of federal, state, and local environmental laws, regulations, ordinances, and permits, and seeks continual improvement of its environmental performance and management systems.

Environmental Aspects/Impacts

Lockheed Martin Astronautics has identified environmental aspects for its property as well as associated environmental impacts. An environmental aspect is any activity, product or service that can interact with the environment. Examples of environmental aspects include: chemical use, natural resources use, waste generation and disposal, facility modifications, vehicle exhaust, wastewater and stormwater discharges, etc. Mitigation of the significant aspects identified by Lockheed Martin Astronautics will be accomplished, in part, by Contractors and Subcontractors complying with the requirements specified in this document.

WHAT TO DO IF YOU SPILL SOMETHING, HAVE AN ACCIDENT, HAVE A HEALTH EMERGENCY, OR HAVE A FIRE

In all cases call Lockheed Martin Plant Protection headquarters for help. On-site emergency response support is available 24-hours per day and the Lockheed Martin emergency support personnel are solely responsible for deciding if outside support agencies are needed. **DO NOT** directly call outside law enforcement, fire or rescue organizations; doing so could cause serious delay or confusion.

From any standard telephone on Lockheed Martin property, call **911**.

That number will reach the Plant Protection Communication Center dispatcher.

To reach the Plant Protection Communication Center using a cellular telephone or any other phone from outside Lockheed Martin property, call **303-977-4646**

When reporting an emergency, please do not hang up until the emergency dispatcher tells you to do so. Be prepared to advise the dispatcher of the location of the emergency, and the people and equipment involved. In the case of a spill, be prepared to tell the dispatcher the name and volume of the material involved and the status of the spill (flowing into a creek, contained, etc.).

After reporting the emergency to the Plant Protection Communication Center, be sure to call the Lockheed Martin Project Manager or Construction Manager and tell him about the situation.

GENERAL PRECAUTIONS

Contractors and Subcontractors shall at all times exercise care to avoid environmental damage. This is a contractual matter which may influence your ability to obtain future work at Lockheed Martin. Particular caution must be given to operations involving the use of chemicals, including

petroleum products such as diesel fuel, paints, solvents, adhesives, etc.

Tanks should not be over-filled and stilt-leg tanks should be anchored properly to avoid toppling. Secondary containment berms should be constructed around storage tanks whenever practical. Any bulging, leaking or damaged petroleum, chemical or waste containers should be reported to Lockheed Martin Plant Protection Communication Center immediately (the phone numbers are **911** from an on-site phone, or **303-977-4646** from an off-site or cellular phone).

All petroleum, chemicals and waste shall be contained in a manner which prevents release to the environment (water, soil or air). Contractors and Subcontractors must not evaporate waste materials such as solvents, as a means of disposal.

Contractor and Subcontractor employees working on Lockheed Martin facilities are required to maintain current training certifications when engaged in any regulated environmental activities where training is required by federal, state, local laws or permit restrictions. Examples include, but are not limited to:

- RCRA Hazardous waste generator training
- OSHA 1910.120 training
- OSHA 1910.1200 training

AIR POLLUTION CONTROL

Air pollution emissions include: gases, solid particles (dust, smoke, and fumes), liquid droplets, and excessive odors. Contractors and Subcontractors shall fully comply with all laws, regulations and permit restrictions incumbent upon Lockheed Martin's operations and property. Notable requirements include, but are not limited to the following:

1) **Fugitive Dust Control:** Dust caused by soil excavation, roadway construction, hauling on unpaved roads, and other dust-producing activities shall be controlled by the Contractor or Subcontractor using covers and water spray. No oils or binders may be used on Lockheed Martin property.

2) **Visible Emissions (opacity):** A visible emission is any atmospheric discharge which causes an obscuring of the background or sky. Contractor and Subcontractor equipment and operations shall not exceed the State and Federal maximum limit of 20% opacity.

3) **Open Burning:** Under no circumstances shall Contractors and Subcontractors burn any materials, except as a natural consequence of welding.

4) **Malodorous Emissions:** Under no circumstance shall Contractors and Subcontractors cause malodorous emissions.

HAZARDOUS WASTE MANAGEMENT

Contractors and Subcontractors often bring materials on-site which qualify for designation as hazardous waste if any excess remains. Some commonly used materials are also capable of contaminating other substrates and causing them to become hazardous waste. Examples of such materials include but are not limited to paints, solvents and sealers, as well as rags, soil and other

items which have been in contact with the materials. Contractors and Subcontractors are advised to closely manage their material purchases to avoid bringing excessive quantities on-site. Whenever possible, materials and processes which will not create hazardous waste shall be used in lieu of ones that can create hazardous waste.

Some demolition debris can also qualify as hazardous waste due to its composition or due to previous contamination. The Contractor or Subcontractor should ascertain whether or not this will be an issue during the bid process.

Unless the contract or subcontract specifies that the Contractor or Subcontractor must provide the hazardous waste disposal services, Lockheed Martin assumes control of hazardous wastes generated on-site and anything that could be suspected of being hazardous waste.

Contractors and Subcontractors shall expeditiously notify the Lockheed Martin Project Manager or Construction Manager that hazardous waste or excess hazardous material is going to be generated. Please note that this includes empty containers that formerly held hazardous substances. The Lockheed Martin Project Manager or Construction Manager will be responsible for contacting AEM and providing waste management support. Lockheed Martin will arrange for proper pick-up, labeling and management of the wastes, materials and empty containers. Contractors and Subcontractors are advised to err on the conservative side in determining if hazardous waste or hazardous material is potentially present.

STORMWATER AND DRAINAGE, EROSION AND WATER POLLUTION CONTROL

There are three basic problem areas that require caution:

1) Discharge of illegal substances to the sewer system this includes both sanitary and industrial/chemical sewers).

2) Discharge of illegal substances to storm drains or surface waters (like Brush Creek). This particular problem is confounded by situations which develop after rainstorms occur (see below for a typical example).

3) Modification of watercourse without having the required permit or approval document.

Contractors and Subcontractors sometimes engage in activities which can run afoul of these three problem areas. Specific examples include, but are not limited to: washing paint brushes in bathroom sinks, draining construction sites with pumps and hoses to a creek, and damming a creek. An example of a rainstorm assisted problem is as follows: Concrete trucks rinsing out in un-approved areas. Some of the rinses do not set up and create a high pH discharge to a watercourse during a rainstorm.

Contractors and Subcontractors shall follow the **Dos and Do Nots** prescribed below.

1) **DO NOT** discharge or rinse any chemical, fuel or petroleum product to any sewer or drain, without first advising the Lockheed Martin Project Manager or Construction manager, and obtaining his approval to do so. The Project Manager or Construction Manager is to coordinate approval of the discharge activity with AEM. Contractors and Subcontractors are

advised, however, that in most instances the activity will be disapproved by the Environmental Management Department due to very stringent State of Colorado discharge regulations.

2) **DO NOT** discharge any fluid to the watercourses or the land surface without first advising the Lockheed Martin Project Manager or Construction Manager, and obtaining his approval to do so. This includes de-watering construction sites after rainstorms. It is expected that the require will be coordinated with the Environmental Management Department.

3) **DO NOT** modify a watercourse even temporarily. This means no dams and no side cuts in the channel.

4) **DO NOT** apply herbicides, pesticides and fertilizers to the land in a manner that would allow these substances to run off to the sewer system, the storm drains or a surface water body. This includes direct run-off and run-off caused by storms.

5) **DO** clean out concrete trucks only in designated areas.

6) **DO** store all chemicals, petroleum products and waste to prevent discharge of any stored material.

7) **DO** contact the Environmental Management Department prior to trench or excavation de-watering.

8) **DO** prevent silting of watercourses by providing erosion and sediment controls, such as silt fences and straw bales at construction sites. Anti-silting controls should conform to the following standards:

- Mulching of all disturbed areas should occur within 14 days after final grade is reached on all portions of site not permanently stabilized.

- Seeding should occur within one year on all disturbed areas and stockpiles not permanently stabilized.

- Roads and stockpiles should be covered as early as possible with the appropriate aggregate base or vegetative cover.

- Vehicle tracking of mud and dirt onto paved surfaces should be cleaned periodically; for sites greater than two acres, a rock pad should be built at points of ingress and egress.

- Sediment entrapment facilities such as terracing, slope drains, straw bale barriers, silt fences, filter strips, sediment traps and sediment basins should be used to capture silt leaving a disturbed area.

- Waterways should not be crossed with construction vehicles. If there are no alternatives contact Environmental Management two weeks in advance.

- Inlets of stormwater sewers should have sediment entrapment facilities installed to prevent sediment-laden water from entering the inlet.

9) **DO** maintain all erosion and sediment controls to assure continued performance until disturbed land is permanently stabilized.

10) **DO** obtain a stormwater permit from the State of Colorado for any construction project that will disturb more than five acres. If a Stormwater Permit Associated with New Construction is obtained, the site must be inspected every two weeks, or after every storm event that has the potential to cause erosion, whichever is more frequent; findings must be corrected within seven calendar days of identification.

POLYCHLORINATED BIPHENYLS (PCB)

Polychlorinated Biphenyls are a group of stable chemicals that are hazardous under normal circumstances and extremely hazardous if they catch on fire. Most major sources of PCB's such as older electrical transformers have been removed from Lockheed Martin property. However, some sources are still present and require special precautions, particularly during demolition activities. Specific sources which may still be present include:

- Capacitors
- Circuit Breakers
- Electrical Cables
- Hydraulic Systems
- Heat Transfer Systems
- Fluorescent Light Ballasts

Contractors and Subcontractors shall take the following precautions:

1) No item containing or contaminated with PCB's shall be brought onto Lockheed Martin property.

2) Contractors and Subcontractors shall pay attention to the list of specific sources (from above) and advise the Lockheed Martin Project Manager or Construction Manager if any of these items are being encountered during demolition or renovation.

3) Unless fluorescent light ballasts are specifically labeled "no PCB's" (or some variant thereof), they shall be assumed to be the older style of ballast which contains PCB's.

4) Any items which contain or are suspected of containing PCB's and which are being removed during renovation or demolition shall be managed properly. Contractors and Subcontractors shall obtain guidance form the Lockheed Martin Project Manager or Construction Manager on how to proceed. This person will coordinate with AEM regarding proper containers, labeling and storage requirements.

5) No item, substance or waste containing or contaminated with PCB's (including light ballasts) shall be disposed of in plant dumpsters.

6) If PCB's are spilled, immediately contact the Plant Protection Command Center at **911** (**303-977-4646** from an off-site or cellular telephone). Do not attempt a cleanup yourself because special regulations and technologies govern PCB spill cleanups. If released PCB's are

otherwise encountered, contact the emergency command center immediately. An example might involve opening a ceiling and discovering a black tar-like substance on a structural member below a distorted fluorescent light ballast. In any event, promptly report the event to the Lockheed Martin Project Manager or Construction Manager.

ASBESTOS CONTAINING MATERIALS ABATEMENT & MANAGEMENT

ABATEMENT

The following are the standard requirements with which a contractor or subcontractor must comply when conducting work associated with asbestos. Note that there are additional Health and Safety requirements that are available by contacting Occupational Safety and Health at **303-977-4444**.

1) The Contractor or Subcontractor shall at all times comply with all relevant regulations regarding asbestos abatement. Relevant regulations include, but are not limited to, those established by the following agencies: Colorado Department of Public Health and Environment, U.S. Environmental Protection Agency, U.S. Department of Transportation, U.S. Occupational Safety and Health Administration.

Colorado Air Quality Control Commission Regulation No. 8, Part B, contains specific requirements for abatement activities, including but not limited to: certification, notification, permitting, work practices, spill response, and waste handling. In addition, the Federal asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) program (40 CFR Part 61 Subpart M) is incorporated by reference into Regulation No. 8, Part E. The Federal program may contain additional requirements applicable to abatement activities meeting certain criteria. The contractor or subcontractor is responsible for complying with all applicable portions of Regulation No. 8 and the Federal NESHAP program.

2) Lockheed Martin will provide and store on-site the empty waste containers necessary for the abatement. Contact your Lockheed Martin Project Manager or Construction Manager to arrange for container delivery.

3) AEM will provide the Contractor or Subcontractor with specific guidance regarding the handling of waste asbestos. Such guidance will vary due to factors such as project size and location, and is normally expected to be provided during the project job walk, or supplemental job walk. The following guidelines are generally applicable:

- The Contractor or Subcontractor must stencil all containers with the job location, job number, or FCA number.

- The Contractor or Subcontractor must maintain a logbook of the contents placed in each container (e.g. material type, volume, approximate weight), and make the logbook available to AEM upon completion of the abatement project.

- The Contractor or Subcontractor must move filled containers to a designated, project-specific staging area. Staging areas will be established by mutual agreement between AEM and the Contractor or Subcontractor. These may be inside a facility for smaller projects, or outdoors

in a secured impound for larger projects. The Contractor or Subcontractor will usually be asked to establish the outdoor impoundment (e.g. locked chain link fence) near the project site, under the abatement contract or subcontract.

- The Contractor or Subcontractor must protect filled containers from damage, weather, and surface water by use of items such as drum covers, tarps, plastic sheets and palettes.

- AEM will arrange transportation and disposal for asbestos containing waste, and will prepare and maintain copies of manifests.

4) The Contractor of Subcontractor must ensure that a copy of the asbestos waste manifest is returned to Astronautics by the disposal company.

5) AEM my be reached at the following number regarding asbestos issues:

Mr. Kent Woods Telephone: 303-977-4858