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Contractor Environment Safety & Health Handbook

Approved by:

/s/

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Headquarters at

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This handbook has been published by Lockheed Martin Aeronautics Company and applies to all LM Aero locations including satellite plants. Each site is authorized to make appropriate changes such as department names, company address, and emergency telephone numbers, etc., as long as the basic contents remain unchanged.

This publication is a digest of basic applicable standards and should not be considered as a substitute for provision of the Occupational Safety and Health Act of 1970 or other local, state, and federal occupational safety and health programs.

Any discrepancy between this publication and regulatory and contractual requirements shall be resolved by using the most stringent requirement.

Contractor's ESH Handbook Revision Log

Issue	Date	Description or Reason for Change
22	May 2011	<ul style="list-style-type: none"> • Incorporated Contractor requirement regarding safety performance data and training records (page 7). • Deleted fourth bullet and inserted ESH Contractor Briefing Statement and applicable requirements (page 8). • Revised language regarding how Contractors are to complete ESH Form 12109 on page 8. • Incorporated ESH 05 Procedure (page 16-17) • Incorporated Lead Acid Batteries statement (page 20). • Inserted the indented paragraph stating Permit requirement and land disposal document for Marietta (page 24). • Clarification of chemical usage recording requirements (page 24). • Clarified what constitutes a “closed container” (page 25). • Incorporated Palmdale’s Pesticide/herbicide site usage requirements (page 26). • Incorporated how completed site specific hazardous material product data information and MSDS(s) are to be approved (page 28). • Incorporated POC instructions for completion of Hazardous Review Submittal Form 10121 (page 28). • Incorporated explanation of “significant” quantities regarding hazardous materials and definition of “new or unique” (page 28).
21	July 2010	<ul style="list-style-type: none"> • Replace Steve Hirtzel with Dorothee D. Currie’s as PM 8013 Approver • Incorporate changes requiring contractors to complete ESH Contractor Questionnaire regardless if any tasks are to be performed Deleted tasks on (pages 8 and 9) • Incorporated requirement to have supervisor or superintendent to have a 10 hour training course (Palmdale only) • Incorporate the inclusion of VPP Program Requirements (page 10) • Incorporate Bloodborne Pathogen changes per site and subassembly plants (page 19) • Incorporate Specific Eye and Head Protection guidelines. (page 28) • Clarification of Fort Worth speed limit on page 30 • Facilities Construction Group name and telephone

		number change page 46
19	December 2009	<ul style="list-style-type: none"> • Incorporated how ISO 14001 information is to be disseminated via English and Spanish hyperlinks to affected Facilities POCs. (page 6) • Incorporated OSHA sanctioned Voluntary Protection Program (VPP) requirement for contractor reporting regarding Contractor working 1000 hours quarterly –Fort Worth only. (page 6) • Revised language regarding who is responsible for handling Bloodborne pathogens. (page 11)
18	April 2009	<ul style="list-style-type: none"> • Incorporate Department Of Transportation requirements including criteria for acceptable transport of hazardous materials under DOT's Materials of Trade (MOT) exceptions. • Pesticides Management (Marietta Only)
17	October 2008	<ul style="list-style-type: none"> • Removes Attachment C, HMRB example form, HMRB form completion referenced in the body of the text.
16	June 2008	<ul style="list-style-type: none"> • Adds vehicle idling requirements • Updates contractor waste disposal requirements at Fort Worth • Adds Fort Worth Air Emissions Signage Requirements • Added permitted equipment malfunction contact information
15	April 2008	<ul style="list-style-type: none"> • Adds contractor requirement to ensure that someone can communicate with all employees at the work site. (page 6) • Defines the use of a disciplinary process for ESH contractual non-compliance. (page 7) • Provides spill containment requirements. (page 17) • Provides refrigerant service or maintenance requirements. (page 17) • Updates Marietta emergency phone numbers. (page 36) • Adds requirement to provide weights of landfill and recycled wastes to site ENV(page 18) • Further defines Palmdale specific Hazard Communication requirements (page 21)
14	March 2007	<ul style="list-style-type: none"> • Adds referenced Table of Contents (page 4) • Expands electrical requirements to include arc flash protection and allows temporary use of extension cords used in series. (page 11) • Adds crane lift plan requirements (page 28) • Adds LM Aero fall protection req. (page 30) • Requires contractor to maintain daily scaffold documentation. (page 34) • Adds additional fall protection requirements during steel erection. (page 34)
13	June 2006	<ul style="list-style-type: none"> • Deletes Attachment G & H • Updates Marietta requirements for greater than 55 Gallon of VOCs per job site
12	May 2006	<ul style="list-style-type: none"> • Updates ESH Training Requirements • Updates Palmdale Emergency Numbers
11	October 2005	<ul style="list-style-type: none"> • Handbook substantially revised
7-10	October 2005	<ul style="list-style-type: none"> • Do not exist. Issue numbers deleted to match AeroCode one page summary
6	April 2004	<ul style="list-style-type: none"> • Corrected attachment reference errors.

		<ul style="list-style-type: none"> • Clarified site specific references. • Clarified requirements on training documentation and prior coordination of hazardous waste disposal.
5	July 2003	<ul style="list-style-type: none"> • Includes requirements for all LM Aero sites. • Consolidated Environmental requirements for Contractors into the handbook • Renamed handbook
4	Dec 2001	Added additional information on the use of aerial lifts and scissor lifts. Revised head protection (hard hat) requirements. Deleted date on form FWP5057.
3	Sept 2001	Handbook completely rewritten.
2	Oct 1995	Updated references to LMTAS. Added information concerning vehicle operations on the Flight Line, Lockout/Tagout Programs, Personal Protective Equipment, and Trenching. Deleted information regarding Chemical Emergency Evacuation of Building 181 and numerical reference tables.
1	May 1987	Original Issue

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INTRODUCTION

APPLICABILITY

This handbook applies to all Contractors, Service/Technical Representatives, Vendors & Suppliers performing work/services or delivering goods on LM Aero owned or operated facilities. For purposes of brevity the above will be referred to in this document simply as Contractor.

POLICY STATEMENT

It is Lockheed Martin Aeronautics Company's (LM Aero's) policy to provide a safe and healthy working environment. The purpose of this handbook is to make all contractor personnel aware of the critical need to maintain a safe workplace, to eliminate causes of accidents and provide direction on environment, safety & health, and fire requirements.

ESH is Everyone's Responsibility

LM Aero is registered to ISO 14001 Environment, Safety and Health Management System. The ISO 14001 brochure which communicates the standard's provisions and how it affects your activities at LM Aero is available in English (English-hyperlinked) and Spanish (Spanish-hyperlinked).

<http://www.lockheedmartin.com/aeronautics/materialmanagement/terms/ESH.html>

LM Aero intends to pursue recognition under the OSHA Voluntary Protection Program (VPP) at the Star level at its various sites. The OSHA VPP program recognizes top safety performers in industry and promotes cooperation between OSHA, industry, and their employees. That cooperation improves and enhances the health and safety of everyone who works at a Voluntary Protection Program (VPP) site. OSHA requires all Voluntary Protection (VPP) sites to implement a system for tracking and reporting the on-site safety performance of contractors who work 1000 or more man-hours in a calendar quarter at a VPP site. LM Aero's policy requires contractors who work on LM Aero VPP sites to report their safety performance data in an annual submittal to the LM Aero ESH organization. The annual submittal summarizes safety performance data by calendar quarter for the previous calendar year. See Attachment K for a sample form for the Fort Worth site. It shall be the responsibility of all contractors who contract directly with LM Aero (General Contractors) to flow this requirement down to all levels of sub-contractors who work on LM Aero VPP sites. See Attachment K for a sample form for the Fort worth site.

Contractors may be required to register with and submit safety performance data/safety training records to a third party contractor safety screening & management vendor selected by Lockheed Martin Aeronautics. Participation in this program will be determined by Lockheed Martin Aeronautics – Environmental Safety & Health Department.

CONTRACTOR ENVIRONMENT, SAFETY, AND HEALTH PROGRAM

All Contractors, Service/Technical Representatives, Vendors & Suppliers, including Subcontractor personnel, shall:

- Be familiar with and comply with all applicable Federal, State, and local and municipal environmental, safety & health, and fire regulations, statutes, rules and ordinances while working on LM Aero premises.
- Carefully read the ESH provisions of their contract, including, but not limited to, the assignment of personnel, training and safety equipment requirements.
- Ensure environment, safety, and health information, provided by LM Aero, is communicated to all their employees and Subcontractors working on-site.
- Review the ESH Contractor Safety Briefing and the applicable requirements of this handbook with their employees and subcontractor employees before entering LM Aero premises. The ESH Contractor Safety Briefing can be found at the following internet link:
<http://www.lockheedmartin.com/aeronautics/materialmanagement/terms/ESH.html> or may be obtained through your contract POC. The Contractor shall maintain written proof of the ESH Contractor Safety Briefing review for their employees and subcontractor employees working on LM Aero leased or owned property. The Contractor will provide written proof of this training within 24 hours upon request by ESH or the contract POC.
- Upon entry into the facility and before starting any work, coordinate their activities with their assigned LM Aero POC. The POC shall communicate with LM Aero Safety & Health (S&H), Fire Protection Services (FPS), Environmental Resources (ENV), and other appropriate functions to establish safety, health, fire, and environmental precautions.
- Have a supervisor on site whenever performing work on LM Aero premises. The supervisor shall know the name of their LM Aero POC.
- The Contractor shall have at least one (1) person on site, at all times, who speaks and understands English and can effectively communicate with contractor and subcontractor employees.
- **Contractor supervisor/superintendent shall have received a minimum of 10 hour OSHA Construction Safety Training-Palmdale only.**
- “Contractors must complete ESH Questionnaire Form 12109 provided by LM Aero Supply Chain Management (SCM) Buyer” if it is contemplated that the Contractors will be performing any tasks or services while on LM Aero leased or owned property. After completion, this form must be returned to the Buyer.”

Both the Contractor and Subcontractor(s), regardless of tier, are subject to enforcement provisions of OSHA/CalOSHA and other federal, state, and local regulations.

Contractor and Subcontractor(s) work shall be subject to inspection by LM Aero.

NOTICE

Failure of the Contractor to comply with safety, health, fire, or environment requirements may result in suspension of work and/or cancellation of the service, contract, or purchase order.

NOTICE

References in this handbook to OSHA standards shall mean the equivalent state OSHA standards (Cal/OSHA standards, Title 8, California Code of Regulations, in California).

References in this handbook to EPA standards shall mean the equivalent state EPA standards (Cal/OSHA standards, Title 26, California Code of Regulations, in California).

References in this handbook to DOT standards shall include any equivalent state DOT standards (e.g., TX DOT in Texas) corresponding to Code of Federal Regulations Title 49 (49CFR) including both hazardous Materials Regulations and Federal Motor Carrier Safety Regulations.

All OSHA or Cal/OSHA and EPA or Cal/EPA and DOT requirements are not contained in this handbook. The contractor must be familiar with and comply with appropriate OSHA, EPA and DOT standards at the LM Aero site where they are working. If there is conflict between the information in this handbook and the OSHA, EPA and DOT regulation, the more stringent requirement(s) shall apply.

When performing non-construction work, obtain copies of the OSHA *Occupational Safety and Health Standards for General Industry* (29 CFR Part 1910). We recommend that Contractors performing construction work obtain copies of the OSHA *Occupational Safety and Health Standards for the Construction Industry* (29 CFR Part 1926) before starting work at LM Aero. Copies of Federal OSHA standards may be obtained from the local OSHA area office, or through the Internet at <http://www.osha.gov>

SUBCONTRACTOR MANAGEMENT

Contractors are required to manage their Subcontractors and ensure their compliance to the LM Aero ESH Program and VPP Program Requirements. Contractors are to communicate the environment, safety, and health information, provided by LM Aero, to all Subcontractors working on-site. Review the Contractor Pre-Work Briefing and the applicable requirements of this handbook with Subcontractors before entering LM Aero premises.

LM Aero will enforce compliance to contractual Environmental Safety and Health requirements through a process of progressive discipline. Examples include, but are not limited to: warnings, suspension of work, expulsion from the work site, and removal from participation on bidding future LM Aero work and contract termination

The Contractor shall ensure Subcontractors working on LM Aero premises have been trained on all applicable ESH regulations and are familiar with applicable sections of this LM Aero *Contractor's Environment, Safety and Health Handbook* (PM-8013). Documentation of training is explained in the paragraph titled "ESH Training". An updated version of this list will be maintained by the contractor and kept available at the contractor's field office or base of operations at the jobsite.

The Contractor will evaluate Subcontractors' Safety Performance based upon the following criteria:

- Evaluate the circumstances where a subcontractor has had an occupational fatality (company wide) within the previous 3 years to ensure effective corrective actions are in place.
- Contractor shall evaluate subcontractors' safety performance, by comparing the subcontractor's OSHA-Injury/Illness" rates [i.e. Total OSHA-recordable cases per 200,000 hours and Lost Workday Cases (with days away from work) per 200,000 hours] against the most recent published OSHA data available for the subcontractor's Standard Industrial Classification (SIC) code, or North American Industry Classification System (NAICS).
- The general contractor will ensure:
 - The average of the subcontractor's injury rates for the past 3 years is less than 125% of their 3-year SIC or NAICS average or
 - The subcontractor's Experience Modification Ratio (EMR) is less than 1.25

If a subcontractor exceeds the injury rate requirements, they must provide a written explanation and identify their injury vehicles improvement actions to the general contractor. When requested provide LM Aero ESH or your contract POC subcontractor injury rate information and subcontractor fatality information.

LM AERO ESH REQUIREMENTS

LM Aero will not provide Contractor personnel with safety equipment. Contractor personnel shall not use or operate LM Aero tools, machinery, equipment, vehicles, or cranes, or other material, unless specifically stated in the contract and approved by the POC.

The Contractor shall be responsible for obtaining the necessary Fire Protective Services (FPS) and/or Environment, Safety & Health (ESH) permits to conduct their work in compliance with regulations and LM Aero site requirements. Some environmental

permits can only be obtained by ESH. In that event the contractor will provide ESH with the information necessary to complete and submit the permit application.

The Contractor shall have available a list of employees designated as “Competent Persons” as defined and required by specific OSHA standards. Contractors shall maintain a list of employees designated as “Competent Persons”. Contractors may use the form found in Attachment “I” or use their own equivalent form. The list will be maintained by the contractor and kept available at the onsite contractor’s field office or base of operations at the jobsite.

ESH TRAINING

The Contractor shall provide general and specific ESH training to their employees according to applicable OSHA, EPA and DOT standards for the work performed. Training may include, but is not limited to, competent Person, hazard communication, personal protective equipment, control of hazardous energy (lockout/tagout), confined space, fire extinguishers, fall protection, motorized work platforms, powered industrial trucks, refrigerant equipment installation or servicing, powder-actuated hand tools, scaffolding, high voltage electricity, trenching, hazardous material transportation (DOT), motor carrier safety (DOT), and hazardous waste management.

The Contractor shall provide to the POC prior to beginning work a signed ESH High Risk Activity letter for contracts or projects where work involves the following activities: confined space entry, excavation and trenching, work at heights that requires fall protection, hazardous energy control (lockout tagout), high voltage electricity, Scaffold erection and use, and steel erection. The letter must be signed by the contractor and indicate understanding and acceptance of obligation to maintain ESH training currency for the contractor’s and subcontractor’s employees for the duration of the project or activity. For projects or contracts that may exceed a year in duration, the contractor will provide the POC a signed ESH High Risk Activity letter annually.

The Contractor shall maintain written proof of ESH training for their employees and subcontractor’s employees working on LM Aero leased or owned property. The contractor will provide written proof of training for their employees and subcontractor employees within 24 hours upon request by ESH or the contract POC.

MEDICAL EMERGENCIES

Contractor shall have on-site personnel trained in first aid, as required by OSHA regulations. Contact your LM POC when your employee or your subcontractor’s employee is injured on LM Aero Premises.

LM Aero Medical and/or Security and Emergency Services Departments, where available, will provide or notify appropriate emergency responders for initial medical services (first response) for medical emergencies occurring on LM Aero premises.

Offsite facilities not staffed with Security and Emergency Services personnel will use the 911 emergency reporting system. If blood or other body fluids are present, the area and/or equipment shall be secured to prevent unauthorized personnel from coming into contact with the fluids. Contractor personnel (unless authorized to do so) shall not attempt to clean up blood or other body fluids.

Security and Emergency Service (SES) at Marietta facility only will be contacted to clean up and disinfect small to intermediate sites where body fluids Bloodborne Pathogens (BBP) are present and to remove and properly dispose of contaminated products. A contract service company will be employed to clean up and disinfect large sites involving BBP. Designated departments and/or trained employees will clean up and properly dispose Bloodborne Pathogens at the other sites and subassembly plants are as follows:
Fort Worth – (Facilities & Plant Engineering) Sanitation Personnel

Palmdale – Plant Engineering Sanitation Services

Marietta – SES and a Contract Service Company

Clarksburg – Volunteer trained employees

Johnstown – Trained general laborers and volunteer emergency responders

Meridian – Janitors and trained first aid employees

Pinellas- Maintenance Team and trained first aid responders

DEFINITIONS

Approved Substitute: A substance listed under the EPA’s Significant New Alternative Program (SNAP) as a replacement for a class I or Class II ODS.

Buyer – Lockheed Martin Aeronautics Company (LM-Aero). Any reference to “Buyer” shall include its duly appointed representatives i.e. POC.

Competent Person – One who is capable of identifying existing and predictable hazards in the surroundings or working conditions, which are unsanitary, hazardous or dangerous to employees, and who is authorized to take prompt corrective measures to eliminate them. Work requiring a Competent Person shall not be performed on LM Aero premises without a Competent Person present at the job site.

Contractor – Any agent/agency engaged by LM Aero through written contract (or other written agreement) to perform work on LM Aero owned or operated premises i.e.

Contractors, Service/Technical Representatives, Vendors & Suppliers that are performing services, construction, renovation, facilities maintenance or support tasks. This includes all tiers of Subcontractors bringing in workers and/or equipment to perform construction, renovation, and facilities maintenance or support tasks. For purposes of brevity the above will be referred to in this document simply as Contractors.

Not included are Contract employees working under LM Aero's direct supervision – they fall under LM Aero's employee ESH programs.

Excavation – Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

Hazardous Material – Any chemical or substance which is a physical hazard, or an environmentally hazardous substance, hazardous waste, marine pollutant, elevated temperature material, material designated as hazardous in the 49CFR 172.101 Hazardous Materials Table, samples believed to be hazardous, and materials that meet the hazard class and division defining criteria in 49CFR Part 173.

LM Aero – See Buyer.

Point of Contact (POC) – An LM Aero representative responsible for providing oversight of Contractors, to ensure compliance with the terms and conditions of the contract, purchase order, or other authorizing documents.

Refrigeration Technician: Any person who performs maintenance, service, repair, or preparation for disposal that could reasonably be expected to release class I or class II substances, or their approved substitutes, from appliances into the atmosphere.

Vehicle – Any means of transportation used to transport personnel and/or property/equipment (e.g., automobiles, trucks, lift trucks, scooters, and golf carts).

Voluntary Protection Program (VPP) – An OSHA program that recognizes worksites with exceptional employee safety and health programs in which certification involves several rigorous on-site visits by an OSHA team. Whereby the team will review LM Aero safety and health management programs, evaluate leadership and employee participation in a LM Aero safety and health program.

ACRONYMS

AC	-	AeroCode
ANSI	-	American National Standards Institute
CDL	-	Commercial Driver's License
CFR	-	Code of Federal Regulations

CMV	-	Commercial Motor Vehicle
CP	-	Company Policy
DOT	-	Department Of Transportation
ENV	-	Environmental Resources
EPA	-	Environmental Protection Agency
ESH	-	Environmental, Safety & Health
FMCSA	-	Federal Motor Carrier Safety Administration
FMCSR	-	Federal Motor Carrier Safety Regulations
FOD	-	Foreign Object Damage
FPS	-	Fire Protection Services
GFCI	-	Ground Fault Circuit Interrupter
HAP	-	Hazardous Air Pollutants
HMR	-	Hazardous Material Regulations
LM Aero	-	Lockheed Martin Aeronautics Company
MSDS	-	Material Safety Data Sheet
MOT	-	Materials of Trade (DOT)
NEC	-	National Electric Code
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute for Occupational Safety and Health
ODS	-	A Class I or Class II Ozone Depleting Substance
OSHA	-	Occupational Safety and Health Administration
PIV	-	Post Indicator Valve
POC	-	Point of Contact
PPE	-	Personal Protective Equipment
PSI	-	Pounds per Square Inch
RQ	-	Reportable Quantity (49 CFR 172.101 Table 1 to Appx A)
S&H	-	Safety & Health

REFERENCES

ISO 14001 brochure	ISO 14001 Standard
29 CFR Part 1910	Occupational Safety and Health Standards for General Industry
29 CFR Part 1926	Occupational Safety and Health Standards for the Construction Industry
ESH 05 Procedure	<p>5.1.2 A briefing of all contracted employees shall be provided by the LM POC to communicate site specific ESH policies and procedures.</p> <p>5.1.3 The LM POC and Contractor shall exchange information and coordinate actions with the site ESH organization regarding regulatory compliance, site-specific requirements/procedures plus Contractor procedures and training prior to the start of the work.</p> <p>5.1.4 The Contractor shall ensure its employees have training to identify and manage workplace ESH risks, and knowledge of</p>

Contractor and site procedures that ensure environmental compliance and the safe performance of the contracted work (e.g., excavation and trenching, fall protection, scaffolding, crane operation, hazard communication, lock out/tag out, etc.) and are in full compliance with all applicable in-country rules and regulations, all LM command media, and the site-specific requirements. The Contractor shall maintain readily accessible records documenting that applicable, timely training has been completed. All ESH-related training and PPE shall be provided by the Contractor using qualified personnel to give training.

GENERAL REQUIREMENTS

The following LM Aero safety, health, fire, environmental, and transportation requirements and information are general requirements for safe performance, and are not a complete list of regulatory requirements. LM Aero's POC, ESH, and FPS Departments can provide additional information, on request.

AISLES, ROADS, AND EXITS

Do not close or impede the use of any aisle, road, or exit (even temporary) without the POC's approval.

DEPARTMENT OF TRANSPORTATION REQUIREMENTS

Contractors shall comply with all DOT requirements for transport of hazardous materials (HM) (Hazardous Material Regulations 49CFR Parts 100-185) and for operation of commercial motor vehicles (CMVs) (Federal Motor Carrier Safety Regulations 49CFR Parts 40, 303, 325, 350-399) when transporting HM or operating CMVs onto or off of Lockheed Martin Aeronautics property.

Contractors who transport hazardous materials under DOT's Materials of Trade (MOT) exceptions per 49CFR 173.6 must comply with all MOT exception criteria, including:

Materials of Trade Quantity Criteria:

The following hazard class/division quantity limits apply:

- For classes 3, 8, 9, divisions 4.1, 5.1, 5.2, 6.1 and ORM-D, the gross mass, including packaging, must not exceed:
 - o PGI – 1 pound (0.5Kg) or 1 pint (0.5L)
 - PGII, PGIII, or ORM-D – 66 pounds (30Kg) or 8 gallons (30L)
 - Diluted mixture of Class 9 \leq 2% concentration – 400 gallons
- o For division 2.1 or 2.2 in a cylinder, the quantity must not exceed 220 pounds (100Kg) per cylinder

* For division 2.2, non-liquefied material, with no subsidiary hazard, in permanently installed tanks built to ASME standards, the capacity may not exceed 70 gallons

- o For division 4.3 material in PGII or PGIII, gross capacity \leq 1 oz. (30ml)
 - The total weight of ALL Materials Of Trade carried on one motor vehicle cannot exceed 440 lbs, not including class 9 mixtures (\leq 2% concentration) in packagings of \leq 400gallons.

Note that some types of DOT hazards (e.g., class 1, 2.3, 4.2, 7) do not qualify for MOT exceptions. Also note that hazmat that *is* allowed as MOT, must be in approved packaging that is no less effective than original manufacturer's packaging, must be secured against movement during transport, and must satisfy hazard communication requirement for marking with name of material including ID# for bulk packages and 'RQ' if material in one package \geq RQ quantity. Note also that chemical samples (e.g., environmental or IH samples being sent to lab for analysis) *may* qualify as MOT *if* the lab doing the analysis performs all of the 'DOT functions' including picking up the samples.

ELECTRICAL

Ensure activities involving electrical work and electrical equipment brought onto LM Aero premises conform to OSHA 29 CFR 1910 and/or 1926 electrical standards (or equivalent state OSHA standards), NEC and other applicable electrical codes, and this manual.

Contractor and subcontractor workers shall not work on live equipment (greater than 50 volts) unless:

- De-energizing equipment introduces additional or increased hazards (such as cutting ventilation to a hazardous atmosphere location) or, it is Infeasible due to equipment design or operational limitations (such as when voltage testing is required for diagnostics).

When it is necessary to work on equipment "live", it is necessary to follow safe work practices, which include assessing the risks, using the proper tools and wearing adequate personal protection equipment described in NFPA 70E.

Ensure electrical equipment is properly maintained and in safe operating condition.

Extension cords shall be of the grounded type (3 prong), with the grounding prong intact. Extension cords are not to be more than 150 feet long and are to be plugged directly into an approved receptacle. Avoid connecting extension cords in series, if extension cords must be connected in series only two cords may be connected in series and they must be disconnected at the end of the task or at the end of the shift, whichever occurs first.

Flexible cords shall be used only in continuous lengths without splice or tap. Hard service flexible cords No. 12 or larger may be repaired if spliced so that the splice retains the insulation, outer sheath properties, and usage characteristics of the cord being spliced.

Flexible cords shall be connected to devices and fittings so that strain relief is provided, which will prevent pull from being directly transmitted to joints or terminal screws.

Extension cords, constructed of metal junction boxes and flexible cords shall not be used.

Extension cord sets used with portable electric tools and appliances shall be of three-wire type and shall be designed for hard or extra-hard usage. Flexible cords used with temporary and portable lights shall be designed for hard or extra-hard usage as defined by the National Electric Code.

Flexible cords and cables shall be protected from potential damage. Sharp corners and projections shall be avoided. Flexible cords and cables may pass through doorways or other pinch points, across stairways, roadways or aisles only if protection is provided to avoid damage to cords and cables and to eliminate potential trip hazards.

Conductors entering boxes, cabinets, or fittings shall be protected from abrasion and openings through which conductors enter shall be effectively closed. Unused openings in cabinets, boxes, and fittings shall also be effectively closed.

All energized junction boxes, circuit breaker panels, and other electrical equipment shall be covered to prevent accidental contact.

All electrical equipment (e.g. machinery, hand tools, extension cords, and lights) shall be grounded. Exception: Double insulated hand tools do not require grounding.

Use ground fault circuit interrupters (GFCIs) on all electrical tools, cords, and equipment. As an alternative, an Assured Grounding Program according to OSHA 29 CFR Part 1926.404(b)(1)(ii) (or equivalent state OSHA requirement) may be used if a Competent Person is designated.

GFCIs shall be used in wet or damp locations, outdoors and in inclement weather.

All lamps, provided for temporary, general illumination, shall be protected from accidental contact or breakage. Metal-case sockets shall be grounded.

Temporary lights shall not be suspended by their electric cords, unless designed to be suspended in this manner.

Only approved, explosion-proof electrical equipment (Class I, Division 1) shall be used in areas containing hazardous concentrations of flammable gases and/or vapors which exist continuously, intermittently, or periodically under normal operating conditions, or which exist frequently because of repair or maintenance operations.

Only approved explosion-proof electrical equipment (Class II, Division 2) shall be used in areas containing hazardous concentrations of dust.

ELEVATED WORK

Do not perform work over LM Aero personnel, aircraft or equipment unless otherwise approved by the LM Aero S&H Department and coordinated by the POC.

When working in elevated locations, ensure materials and tools do not fall. Attach taglines or thongs to hand tools and wrap them around wrists or tie them to the belt to prevent tools from falling. Barricade areas under overhead work and clear them of personnel. If this is not possible, work may be rescheduled to a time when personnel are not present.

Tools, materials, and trash shall not be dropped or thrown to or from elevated locations.

Use lifelines, lanyards, full body harnesses and other protective equipment to protect against fall hazards when working above 6 feet, unless guardrails or other recognized methods of fall protection are utilized.

Exceptions: Fall protection requirements for scaffolds, steel erection, and stairways and ladders shall comply with OSHA 29 CFR Part 1926 Subpart L, "Scaffolding", Subpart R, "Steel Erection", and Subpart X, "Stairways and Ladders" or equivalent state requirements. Consult with a Competent Person before beginning work.

Do not use aerial lifts and scissor lifts as cranes, jack stands, or forklifts.

Wear fall protection equipment (full body harness and lanyard) while in the platform of aerial lifts and "cherry pickers". When working from an aerial lift or scissor lift, personnel shall maintain a firm footing on the platform floor while working therein. Do not use planks, step-stands, ladders, or other devices on the platform for achieving additional height or reach.

Notify the POC before working in or near a roof support structure or any other location where contact with energized overhead cranes or power lines may occur, so LM Aero can turn off and lock/tag out power to the energized system. The Contractor must implement their own energy control (lockout/tagout) procedure along with LM Aero personnel to adequately protect against potential hazardous energy sources

EMERGENCY PROCEDURES

Ensure personnel are familiar with and know the location of the following emergency items:

- The nearest telephone and emergency numbers to call to report a Fire, a medical emergency requiring an Ambulance or a Chemical Spill.
- The nearest fire extinguisher. LM Aero does not require Contractor personnel to use fire protection equipment but provides the equipment in the event the Contractor chooses to use it. In some circumstances the Contractor may be required to provide additional fire extinguishers.
- The nearest emergency exit.
- The nearest emergency eyewash and shower or water source, if applicable.

The means of notifying emergency services shall be posted by the contractor at the work site. The contractor shall notify all of the on-site personnel on how to best avail themselves of these services.

If emergency medical services are not available within two (2) to four (4) minutes of the job site, the contractor shall have at least one first aid and CPR certified worker. It is the contractor's responsibility to assess the availability of emergency medical services.

The contractor shall provide an approved first aid kit at the worksite. An example of the minimal contents of a generic first aid kit is described in American National Standard (ANSI) Z308.1-1978 "Minimum Requirements for Industrial Unite- Type First-Aid Kits".

ENVIRONMENTAL REQUIREMENTS

Lead Acid Batteries:

When installing machinery or equipment that contains lead acid batteries and the batteries are not specifically listed as a line item on the purchase order, the Contractor must notify ESH prior to installation.

(Palmdale Only) Environmental Resources provide POC copies of authority to construct (ATC) document for posting at jobsite.

Contractors servicing permitted equipment must immediately contact ESH by dialing the in-plant dispatch number (911) and then their LM-Aeronautics POC when they encounter, or cause, an equipment malfunction, or, encounter or cause operating conditions outside of the stated permit conditions.

The Contractor shall obtain written authorization from the POC prior to beginning renovation projects which include any land disturbances (clearing, grading, or excavation activities), the disturbance of any asbestos-containing material in a building or facility, or before the demolition of a building or facility, even when no asbestos is present.

The following activities are prohibited at all times while on LM Aero premises:

- No open burning.
- No activities which cause a nuisance off of the facility. Examples of a nuisance are excessive dust and odors that carry over to non-LM Aero sites.
- Entering LM Aero's premises with or using materials containing banned chemicals list found in Attachment "D".
- In Marietta, entering AF Plant 6 with or using materials containing banned chemicals in Attachment "D" and the Marietta Banned List found in the Contractors ESH briefing, provided by your POC.

Contractors shall not conduct the following activities without prior approval from the site POC and ENV:

- Outdoor painting, paint stripping or abrasive cleaning.
- Seal coating operations on parking lot pavement, roads or tarmac.
- Use of coatings and/or solvents.
- Any activities that involve significant usage of water or generation of wastewater.
- Any activities that result in discharging water or pollutants to a sink, or storm, floor or sewer drain.
- Any activities that disturb one acre of land or more.
- Connecting to any existing exhaust ducts or control equipment or installation of any equipment having air emissions.
- Transport on or off site of DOT hazardous materials requiring placarding without site POC and/or ENV knowledge.
- Dispose of waste material in LM Aero waste containers (e.g., dumpsters or roll offs)
- Dispose of hazardous waste without Environmental Resources approval.
- Dispose of waste materials, excavated soils and concrete.
- In Fort Worth, Signs on fences, walls, equipment, exhaust stacks/vents, etc. are often required by federal, state or local regulatory requirements. Unless specifically directed in the contract, no signs should be painted over, covered or removed from a work surface or piece of equipment. Any signage that is handled during a project should be returned to the same or similar location and condition upon completion of work on that object, unless otherwise directed in the contract. If there is ever any question concerning a sign, notify the construction POC assigned to the project."
- It is highly recommended that contractors utilize non-gasoline powered vehicles wherever possible and that their access to inside work areas may be restricted if they use gasoline powered vehicles.
- All contractors shall not allow excessive idling of vehicles at construction sites.

Contractor shall evaluate jobsite and activities and take action necessary to ensure no materials or wastewaters enter storm drains.

Keep material containers closed when not in use.

Contractors in Marietta will complete the Pollution Prevention Checklist found in attachment “J” for all construction and demolition projects. Provide the completed checklist to your POC before work begins.

Contractors at Fort Worth shall be familiar with the brochure, Contractor’s Hazardous Material Management Information (Attachment “E”), for specific directions on the handling and disposal of hazardous materials. Other sites may use this as a general guide.

Contractors planning operations that may generate waste must notify the POC of all hazardous wastes likely to be generated as a result of contractor activity and coordinate waste management activities with the POC. Contractor shall not dispose of any materials on LM Aero’s premises without specific instructions and authorization from their POC and ENV. Obtain instructions from the POC and ENV regarding disposal of the following materials:

- Chemicals, paints, and toxic materials.
- Soil, construction debris, wash, or rinse waters.
- Protective clothing, laboratory equipment, medical devices (syringes/needles)
- Empty chemical containers, aerosol cans
- Batteries, absorbent materials, tires
- Used oil filters, air filters, paint filters
- Asphalt and concrete should be recycled
- If there is any doubt about disposal, contact your POC

Contractors shall handle, transport and dispose of all non-hazardous wastes in accordance with Federal, state, municipal, local and other rules, regulations, ordinances and requirements. Contractors must segregate hazardous waste from non-hazardous waste.

Operations involving the removal of unbroken lamps containing mercury or other hazardous constituents shall comply with the following universal waste requirements. Universal wastes must be stored to prevent leaking and breakage. Contact POC with any questions about appropriate handling.

- Used fluorescent, High Intensity Discharge (HID), sodium vapor, and metal halide lamps must be contained in the original bulb container or other sturdy packaging to prevent breakage. Contact your POC for information on appropriate packaging. In Marietta, shipping containers for unbroken waste lamps are provided by ESH.
- Containers of unbroken lamps must be labeled as “Universal Waste – Lamps” and contain the date of accumulation start, as well as any information required by site specific labels. Contact your POC for site specific labels.
- Containers must be dated when the first lamp is placed in the container, and the containers must be sealed when they are full.
- Full, closed containers of waste lamps with all required labeling should be delivered to the appropriate storage location as specified by the POC.
 - Fort Worth – Bldg. 216

- Contractor deliveries of waste must be received by an LM Aero employee at Bldg. 216 during the hours of 7:00 AM – 3:45 PM Monday through Friday. Drop-offs of material are not authorized. Form FWP5255 must be attached to the materials. Contact Construction POC for the form.
 - Palmdale
 - Plant 10 – Bldg. 629
 - Site 2 – Bldg. 250
 - Site 7 – Bldg. 722
 - Marietta – Contact your POC for access to Used Lamp accumulation points.
- Operations involving the removal of broken lamps and/or lighting ballast(s) from the work site shall be coordinated with the POC prior to start of work. Broken lamps and/or lighting ballasts may be hazardous or state-regulated waste, and must be handled accordingly. Contact Hazardous Waste Operations (Marietta), HazMat (Palmdale), or Warehouse Operations and Distribution (Fort Worth) for regulated waste containers.
- Unless otherwise directed by your POC contractors are responsible for providing storage and shipment containers for unbroken waste lamps. Containers must be appropriate to the size, type, and number of lamps being stored, and must be managed in a manner that prevents breakage (Lids fully closed and sufficient packing material to prevent breakage).

Call from any in-plant telephone to report an actual or suspected spill or leak of oils, paints, acids, or other chemicals that have the potential for entry into soil, sinks, floor drains, or storm drains. Immediately notify your POC of any actual or suspected spills or leaks.

The following site reporting requirements apply:

- Fort Worth – upon completion of the Purchase Order, the Contractor will forward a copy of Paint Certificate with the Purchase Order Completion Notice (POCN) (form FWP5270) to ENV via the POC.
- At Marietta – Contractors using greater than 55 gallons of material containing volatile organic compounds (VOC) per job shall complete a Hazardous Material Usage Log, Form 10977 and submit the log to the POC not later than the end of the calendar year. Jobs ending prior to the end of the calendar year may submit the completed Form 10977 to the POC at job completion. The POC shall provide the completed Form 10977 to the air quality engineer. Exemptions from this requirement must be approved by the Environmental Resources air quality engineer or department manager.
- Palmdale – Contractors must record daily usage of painting and coating products (Attachment F – Form 10977.) These completed chemical usage records must be submitted to ENV on a weekly basis.

Palmdale – Pesticide/herbicide application Contractors must retain site usage records (previous year plus current) to provide ENV upon request. This information is typically requested on an annual basis.

Palmdale – Water treatment Contractors must retain site usage records (previous year plus current) to provide to ENV upon request. This information is typically requested on an annual basis.

Palmdale – If Contractor’s operations require air pollution permit(s), the Contractor shall maintain copies of Permit(s) to Operate, (or Application for Permits to Operate), or documentation to show an exemption from the permit requirements on-site and make them readily available to all equipment and materials used by the Contractor.

ENV (Fort Worth and Palmdale) and Material Operations/Chemical Warehouse (Marietta) will retain manifests, land disposal restrictions documents, bills of lading, and other shipping documentation.

Contractors shall coordinate with their POC for site specific refrigerant tracking and reporting requirements.

Container Management:

- Containers used for accumulation of material shall be closed when not in use.
- Keep large containers and scrap hoppers closed at all times unless depositing materials or scrap. “Keep closed” refers to closing all container doors and includes covering the container and scrap hopper if contents contain any contaminants that will affect storm water runoff or can be released in the air. Alternate disposal methods will be approved by ENV.
- Large containers shall be labeled with the contents and point-of-contact name with phone number for the container.
- Containers shall not be stored near storm drains.
- Containers used to accumulate hazardous waste must be labeled with LM Aero hazardous waste decals.
- Hazardous material and waste containers must be appropriate per DOT requirements, compatible with materials contained, not leaking, and not over-filled.
- All hazardous material containers transported on or off site other than MOT must bear all required DOT markings and DOT labels.
- Liquid storage containers with capacity of 55 gallons or greater must have secondary containment.
- Contractor is to provide to Lockheed Martin site ENV Resources Dept POC weight’s of project construction and demolition debris that are going to landfill and materials that are recycled.

Spill Containment:

The presence of fuel or oil storage containers on site with an individual capacity of 55 gallons or greater and a combined total capacity of 1320 gallons or greater will require the contractor to prepare an oil spill prevention, control, and countermeasure (SPCC) plan

per the requirements in Title 40 Code of Federal Regulations (CFR) Part 112. Contact your LM Aero POC and coordinate with ESH if this condition is expected to exist. (NOTE: Only containers with a capacity of 55 gallons or greater are counted toward the total capacity. The gas tanks on vehicles and mobile equipment do not count toward the total capacity. The tank on a tank truck or tank trailer does count towards the total capacity if the tank holds fuel or oil and is kept on-site.)

Refrigerant Equipment:

All work that requires opening a refrigerant system or that could reasonably be expected to result in a release of Class I or Class II ozone depleting substance (ODS), or their approved substitutes, to the atmosphere shall utilize recovery/reclamation equipment that is certified by an EPA approved testing agency.

Refrigerant usage (installations, additions, removals, etc) must be reported to the Lockheed Martin POC for possible inclusion in site air emissions inventories. Check with your contract POC or the ESH organization to determine if site-specific reporting form submittal is required.

Intentionally venting or releasing any Class I or Class II ODS, or their approved substitutes, to the atmosphere is expressly forbidden.

Pesticides Management

All pesticide / insecticide / rodenticide use must be approved by ESH and applied by the Licensed Commercial Applicator (company) currently under contract by Facilities & Plant Engineering (F&PE). Contractor approved pesticide / insecticide / rodenticide materials shall not be mixed or stored on site unless specifically authorized by ESH. Disposal of pesticide materials is the contractor's responsibility.

Palmdale - Pesticide/herbicide application contractors must retain site usage records (previous year plus current) to provide to ENV upon request. This information is typically requested on an annual basis.

EXCAVATIONS, FLOOR, AND ROOF OPENINGS

In areas where there is suspected or known contamination, soil samples must be analyzed to determine extent and type of contamination before start of excavation. Spoil piles will not be removed from site without approval of the POC.

Before entry excavations and trenches shall be evaluated for confined spaces.

Ensure a Competent Person inspects all excavations before work begins and as needed during the shift. When the Competent Person finds evidence of a hazardous condition, exposed employees shall be removed from the hazardous areas until the necessary precautions have been taken to ensure their safety.

All excavations, regardless of depth, shall be barricaded or covered. If barricades are utilized and are left overnight they shall be equipped with appropriate lights or reflectors.

Walkways shall be provided where employees or equipment are required or permitted to cross over excavations. When walkways are utilized, a guardrail system shall be in place.

Temporary covers for holes in floors, roofs, and other walking/working surfaces shall be:

- capable of supporting, without failure, at least twice the weight of personnel, equipment, and materials that may be imposed on the cover at any one time
- secured to prevent accidental displacement by the wind, equipment, or personnel.
- color coded or marked with the word “HOLE” or “COVER” to provide warning of the hazard. If non-English speaking personnel are in the area, the wording shall be marked in a language personnel will understand.

Concrete patches/repairs shall be made with a material comparable to the material removed, and shall have a texture and surface similar to materials replaced and surrounding areas. Concrete repairs shall not be left with a sandy/gravelly surface that may cause an employee slip hazard.

FLAMMABLE, COMBUSTIBLE, TOXIC AND OTHER HAZARDOUS MATERIALS

Hazardous materials on LM Aero’s premises shall be labeled in compliance with OSHA 29 CFR Part 1910.1200, “Hazard Communication”. Hazardous materials shall be contained in approved containers and used, stored, and transported in accordance with ESH, FPS and DOT requirements. The Contractor shall coordinate with the POC for compliance with these guidelines. For all hazardous materials used on Lockheed Martin property, contractors shall maintain MSDSs on site, or be able to obtain them immediately and produce them on request. Contractors shall not use banned hazardous materials. Contractors can obtain from the POC the identity of hazardous chemicals used in LM Aero operations to which Contractor's employees may be exposed.

Flammable and combustible liquids, such as solvents, paint thinners, gasoline, and diesel fuels shall be used and handled in a safe manner. No more than five (5) gallons of these materials may be stored at one location without specific approval from LM Aero’s FPS Department. Only approved safety container shall be used to contain flammable and combustible liquids, except paint. Containers shall be limited to a five (5) gallon capacity and kept closed when not in use. Plastic containers shall not be used to contain flammable or combustible liquids.

All flammable materials shall be removed from the work site or properly stored at the end of each workday.

Adequate ventilation and/or respiratory protection shall be provided and maintained when

flammable or toxic liquids are used, especially in enclosed areas. This precaution also applies to spray and/or brush painting.

HAZARD COMMUNICATION PROGRAM

LM Aero maintains a list of hazardous chemicals used by LM Aero employees at LM Aero facilities. Material Safety Data Sheets (MSDS) for those hazardous chemicals are available from your POC, if requested. Contractors with employees working on LM Aero premises shall:

- Not bring any hazardous materials on LM Aero property containing chemicals on the LM Aero banned list or other local banned list.

- Review their contract(s) for information on hazardous chemicals. All bidders must be able to furnish a list for LM Aero approval, of chemicals, paints, cleaners, compounds, and other liquid products that will be used and an MSDS for hazardous materials as defined by OSHA 29 CFR Part 1910.1200 (or equivalent state OSHA requirement).
- Inform their employees of the hazards they may encounter, provide training, and supply personal protective equipment required to safely perform their work.
- Each contractor, including subcontractors, shall maintain a MSDS file at the work location for each hazardous material used on LM Aero property.
- Not use hazardous materials within 25 feet of HVAC inlet air ducts unless approved by your POC.
- In Ft. Worth provide to POC, before work starts, completed site specific hazardous material product data information and MSDS(s) for each hazardous material to be used for Facilities Engineering and ESH approval.
- In Palmdale, for hazardous materials to be used on Lockheed Martin property, the following Contractors shall provide MSDS's to the POC and ensure they are approved by Lockheed Martin Environmental Safety and Health before use.
 - Pesticide or herbicide applicators
 - Painting or coating applicators
 - Flooring removal or installation contractors
 - Long-term general construction or maintenance Contractors, with personnel stationed on-site
 - Any chemically-intensive operation or process that uses or stores significant concentrations or quantities of hazardous materials at LM Aeronautics or introduces new or unique chemicals that may otherwise significantly impact LM Aeronautics operations or employees. For purposes of this section, "significant" quantities of hazardous materials means storing/using containers with more than 500 pounds (solid), 55 gallons (liquid) or 200 cubic feet (compressed gas) on site for more than 30 days. The definition of "new or unique" chemicals is up to the discretion of ESH. Any proposed process that may trigger ESH concerns should be clarified first with ESH through the POC and will be managed on a case-by-case basis. Typical examples of projects requiring ESH approval may include specialty cleaning operations, drinking or other

water treatment operations, or flushing/retrofill of oil-filled electrical transformers.

- Provide to the POC, before work starts, completed site specific *Hazardous Material Review Submittal form 10121*.

For purposes of this section, “significant” quantities of hazardous materials means storing/using containers with more than 500 pounds (solid), 55 gallons (liquid) or 200 cubic feet (compressed gas) on site more than 30 days. The definition of “new or unique” chemicals is up to the discretion of ESH. Any proposed process that may trigger ESH concerns should be clarified first with ESH through the POC and will be managed on a case-by-case basis. Typical examples of projects requiring ESH approval may include specialty cleaning operations, drinking or other water treatment operations, or flushing/retrofill of oil-filled electrical transformers.

- In Ft Worth and Marietta, contractors should use only hazardous materials on the Approved Hazardous Materials List. You may view the approved hazardous materials list at <http://www.lockheedmartin.com/aeronautics/materialmanagement/terms/ESH.html>
- In Marietta, to use hazardous materials not on the approved hazardous material list the contractor must:
 - Review the material MSDSs for banned chemicals contained in Marietta banned chemical list found in the Contractor Safety Briefing and in the Aeronautics Hazardous Materials Elimination List (HMEL). Both lists can be found at the following URL <http://www.lockheedmartin.com/aeronautics/materialmanagement/terms/ESH.html>. Use of any material containing banned chemicals is prohibited. For all other materials, provide the Facilities POC with the MSDS(s) and completed HMRB Submittal Form 11247, also found at the URL listed above, for each hazardous material to be used. Provide your POC the MSDS as soon as possible as the approval process may take as long as three weeks/
 - The POC will provide the MSDSs to ESH for number assignment.
 - ESH will assign a MSDS number to each hazardous material and provide the numbers to the POC.
 - The POC must then electronically submit each completed HMRB submittal form for each material, by MSDS number, to the HMRB for approval. Materials are submitted at the following URL: http://maru208.mar.lmco.com/cgi-bin/newmims/main_menu ○ Hazardous materials must be HMRB approved prior to being brought on site. ESH will notify the POC if the material is approved or disapproved. If disapproved an appeal can be filed, which will be presented to the HMMP by the POC.
 - Emergency situation variance shall be approved by the POC and ESH

HOUSEKEEPING AND MATERIAL STORAGE

Maintain good housekeeping at all times. Clean work areas and store items neatly at the end of each work shift. Remove combustible material (e.g., trash, wood, rags, cardboard, paper) at the end of each day.

MACHINERY, TOOLS, AND EQUIPMENT

Contractor shall not use or operate LM Aero's tools, machinery, vehicles, cranes, or other equipment, unless approved to do so by the POC.

Points of operation on power-transmission equipment (e.g., gears, chains, sprockets, belts, pulleys) and portable powered tools (e.g., portable grinders, portable saws, pneumatic nailers/staplers) shall be guarded.

Machines, tools, and equipment shall be inspected frequently and removed from service if defective.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Contractor shall be responsible for providing PPE and ensuring their personnel wear required PPE (e.g., eye protection, face protection, head protection, hand protection, hearing protection, foot protection, respiratory protection, fall protection) appropriate for the hazard. LM Aero shall not furnish Contractor personnel with any PPE.

Contractor personnel shall wear head protection (hard hats) when exposed to the possibility of head injury from impact, falling or flying objects, or electrical shock and burns. The Class of hard hat required to be worn shall be based upon the type of exposure to which personnel are exposed (e.g., impact and penetration, electrical shock and burns).

SPECIFIC EYE PROTECTION REQUIREMENTS

Contractor personnel shall wear eye protection, equipped with side shields when exposed to operations generating a hazard to the eyes and when in LM Aero areas where eye protection is required (glasses, side shields and goggles).

Contractor personnel shall wear eye and face protection in accordance with ESH's PM-8013 (Contractor Safety Handbook); all eye protection must comply with ANSI Z87.1-1989. Safety glasses shall include side impact protection (side shields); ordinary glasses (reading or non-occupational eye wear) do not provide required eye protection and if ordinary glasses are worn, ANSI Z87.1 cover glasses must be worn over them. Face shields alone do not meet the ANSI impact resistance requirements and shall not be used as primary eye protection; ANSI Z87.1 approved eye protection must be worn over face shields to meet eye protection requirements.

Eye protection must be provided when the following hazards are present:

- Dust and other flying particles, such as metal shavings or sawdust
- Corrosive gases, vapors, and liquids
- Molten metal that may splash

- Materials that may splash, such as chemicals
- Intense light from welding and laser eye/face protection must be tinted accordingly

The job tasks requiring eye protection could be, but are not limited to electrical work, drilling, sweeping, sawing, cutting, shaping, crushing, breaking, nailing, digging, boring etc. Moreover, eye protection will be required if any person is in the area where these hazards may exist. Eye protection will not be required in an office if the aforementioned hazards do not exist.

SPECIFIC HEAD PROTECTION REQUIREMENTS

Head protection must comply with ANSI Z89.1986. Hard hats are required where there is a potential for injury to the head from falling objects. Hard hats will be worn when these hazards are present:

- Falling objects such as tools
- Bumping head against objects, such as pipes or beams
- Contact with exposed electrical wiring or components
- Flying objects

Job tasks requiring head protection could be, but are not limited to crane operations, overhead construction work, some electrical work, working underneath low structures that could result in a struck against injury. Head protection will be required if a person is in the work area where these tasks are being performed. For example, if a worker is sweeping the floor where any of the above hazards exist, a hard hat must be worn.

Contractor personnel shall wear hand protection (gloves) when exposed to hand hazards. Gloves shall not be worn close to revolving/rotating machinery or equipment.

Contractor personnel shall wear hearing protection when performing tasks or working in areas where the noise level is above 85 dB (8-hour Time Weighted Average [TWA]).

Contractor personnel shall wear foot protection when exposed to foot hazards from sharp objects and impact.

Contractors shall maintain a Respiratory Protection Program in accordance with OSHA 29 CFR Part 1910.134, including respirator selection, medical examinations, training, and fit test, when the contracted activity requires respiratory protection.

Contractor personnel shall use fall protection equipment, such as full body harnesses and lanyards, in compliance with the requirements of OSHA 29 CFR Part 1926, Subpart E, "Personal Protective and Life Equipment" and OSHA 29 CFR 1926, Subpart M, "Fall Protection".

PORTABLE LADDERS

Ensure ladders are in good condition and free from structural defects.

Immediately remove defective ladders from use, mark them as defective, and keep them from service until repaired.

If using a ladder in an aisle, roadway, or doorway, barricade the area around the ladder and/or post it to protect the ladder from being struck.

SMOKING

Smoking is prohibited on LM Aero property.

VEHICLE OPERATIONS

The following general practices apply:

- Wear seat belts in accordance with State motor vehicle laws, or when provided on equipment.
- Personnel shall not use electronic devices while operating vehicles on Aeronautics property, unless the vehicle is parked in a safe and legal location or, for voice communications only, unless a hands-free device is used.
- Pedestrians, aircraft, and authorized emergency vehicles have the right of way at all times
- Use extreme caution when passing through doors that lead to the outside of the building and when passing personnel doors that exit into traffic aisles.
- Ensure vehicles do not enter buildings unless approved by the POC or other authorized LM Aero representative.
- Use extreme caution at all times to avoid vehicle-pedestrian accidents, especially during lunch, break periods and at shift changes.
- Only emergency vehicles shall pass into or through hazardous areas enclosed by barricades or areas designated by signs as hazardous.
- All in-plant traffic accidents involving property damage or personal injury shall be reported immediately to the POC.
- When possible, equipment powered by internal combustion engines shall be vented outside, except for movement to or from the work area.
- Internal combustion vehicles parked shall be turned off to reduce air pollution.
- Vehicles and trailers shall not be overloaded as to weight or size of load. Material that cannot be safely transported in a vehicle, on a trailer or on a skid, shall not be carried by these means. If material has the potential for movement, it shall be adequately secured prior to movement.
- Personnel shall not ride on a vehicle unless seating is provided. Personnel may ride in the bed of a pickup truck provided personnel remain seated in the bed of the vehicle and do not sit on bed rails or equipment that is carried within the confines of the bed rails. Personnel may not ride on moving equipment or trailers unless they are designed to carry passengers.

- Standing on a moving vehicle is prohibited, unless the vehicle is designed for such operation (e.g., scissor lifts, aerial lifts). Manufacturer’s specifications and recommendations shall be followed.
- Vehicles shall not be refueled inside any building. This includes the exchange of propane cylinders on propane-fueled vehicles.
- The Contractor shall ensure that each powered industrial truck (fork lift) operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in OSHA 29 CFR Part 1910.178(l).
- Operators of commercial motor vehicles must have an appropriate driver’s license or CDL and other records as may be required by Federal Motor Carrier Safety Regulations.

Signals, Stop, and Yield Signs

- Vehicle operators shall use mechanical or standard arm signals when turning and shall observe all State and local traffic regulations while on LM Aero’s premises.
- Vehicle operators shall observe all posted traffic signs.
- Except on aisles equipped with “Stop” signs at the intersection, vehicles traveling on north-south aisle have the right-of-way over other vehicles. However, north-south vehicle operators shall continue to watch for pedestrians and slow down at intersections.

Speed Limits (Except Flight Line)

The rate of speed shall be reduced for existing road conditions. In congested areas, speeds shall be reduced. Unless otherwise posted the following speed limits are in effect:

- Marietta:
 - In buildings and in parking lots, 5 mph
 - Outside areas, 20 mph
- Palmdale:
 - Outside areas, 20 MPH
 - Parking lots, 10 MPH
- Fort Worth:
 - In buildings, 8 MPH
 - Outside areas, 20 MPH
 - Parking lots, 15 MPH
 - On Lockheed Boulevard, 35 MPH
 - Exiting the main plant, 15 MPH. Note: Vehicles leaving the plant do not have the right-of-way, and shall yield to traffic outside the plant.

Flight Line

The following apply when operating vehicles on the flight line:

- Contractor personnel are not permitted on the flight line unless in the performance of a contractual job task. Entry onto the flight line requires POC authorization and shall only be through designated FOD checkpoints.
- The flight line speed limit is 15 MPH.
- Special purpose vehicles, such as tugs and forklifts, shall not exceed 10 MPH.
- Vehicles shall not operate in excess of 5 MPH when near aircraft.
- With the exception of emergency vehicles, vehicles shall not be driven within ten (10) feet of parked aircraft.
- Vehicles shall not be parked or driven closer than 25 feet in front of or 200 feet to the rear of any aircraft when the engine is running or about to be started.
- When parking on the flight line, vehicles shall not be parked pointed directly towards an aircraft.
- All vehicles shall approach parked aircraft with the driver's side of the vehicle toward the aircraft. This does not include vehicles parking in front of the run station.
- Vehicles shall not be parked in front of, or driven into the path of taxiing aircraft.
- Only vehicle operators licensed by the government shall be allowed to drive on or across the runways.
- Vans, pickups, and automobiles are not to be used for towing unless they are properly equipped for towing.
- At night, headlights directed toward moving aircraft will be turned off. Parking lights will be utilized.
- When the driver's seat is vacated, ignition is to be turned off, brakes set and gear lever placed in reverse. If the vehicle is equipped with an automatic transmission, the gear lever is to be placed in the park position.
- Vehicles left unattended on the aircraft parking ramp, shall utilize wheel chocks to secure the vehicle from rolling, unless the vehicle is equipped with a parking brake.

Parking

If authorized to bring vehicles onto the facility, observe in-plant parking regulations.

Gate passes may be revoked for:

- Parking in designated "No Parking" areas.
- Parking in reserved parking spaces without POC authorization.
- Parking in front of an aircraft hangar

WARNING SIGNS AND BARRICADES

Erect and properly maintain necessary safeguards to protect Contractor personnel, LM Aero employees, and others. Isolate work areas from LM Aero operations and employees by using warning tape, barricades, or another effective means.

Before beginning work, inform the POC of work posing a potential danger to LM Aero personnel and obtain POC's written authorization to proceed)

Safety Performance Data

LM Aero Voluntary Protection Program (VPP) sites require contractors to report their site-specific safety performance data to the LM Aero ESH Organization annually. The annual report summarizes safety performance data by calendar quarter for the previous year. See Attachment K for a sample of Form XXXX. The form must be completed and submitted to the Voluntary Protection Program (VPP) site ESH organization as soon as possible after the end of a calendar year, but not later than February 1 of the following year. An annual request letter will be sent to each contractor company at the end of a calendar year as a reminder to submit the safety performance data on or before the February 1 deadline. **Failure to submit the data by the deadline may affect a contractor's ability to continue to do business with LM Aero.** See Attachment K for a sample request letter and submittal form for the Fort Worth site.

SPECIAL REQUIREMENTS

ASBESTOS

Immediately report any contact with asbestos-containing or suspected asbestos-containing materials to the POC. Cease work immediately until the POC gives approval to resume work

Notify POC in advance of any maintenance, repair, renovation, construction, removal, demolition or salvage activities in which any materials contain asbestos. Unless directed otherwise by the POC, Contractor shall provide notification to the POC who will notify ESH. LM Aero ESH will review plans for removal/demolition work and, if necessary, specify the requirements for establishing regulated areas and monitoring. ESH will ensure that notifications required by regulatory agencies are properly coordinated and submitted to the agencies within the time frames specified in the regulations.

Contact LM Aero POC in advance of small-scale, short duration operations, such as pipe repair, valve replacement, installing electrical conduits, installing or removing drywall, and other general building maintenance or renovations operations to establish acceptable monitoring and work practices.

All work shall be completed in a way that will not expose LM Aero's personnel to asbestos.

Contractor will post signs stating asbestos work is in progress and secure the immediate area with flagging (or equivalent material) to keep personnel from entering the area. The signs shall bear the following information:

DANGER

Asbestos

**Cancer and Lung Disease Hazard
Authorized Personnel Only
Respirators and Protective Clothing Are
Required in this Area**

Contractor shall take adequate precautions to prevent asbestos from becoming airborne. Extra caution should be exercised when working near air intakes and exhausts. Where possible all doors near the area shall be closed to prevent drafts.

Contractor shall comply with all applicable laws and regulations, including without limitation, the OSHA and Environmental Protection Agency (EPA) regulations relating to the handling or removal of asbestos. OSHA 29 CFR Part 1926.1101, Table 1, specifies, among other things, exposure limits, monitoring requirements, hazard communications, medical surveillance, record keeping, work practices and personal protective equipment.

Bags of asbestos waste/contaminated debris shall have a readily visible label and be legibly marked as follows:

DANGER

**Contains Asbestos Fibers
Avoid Creating Dust
Cancer and Lung Disease Hazard**

Contractor's Name

Date

Location of Removal

Bags of asbestos waste/contaminated debris shall be delivered to a waste accumulation area designated by the POC. Asbestos waste shall be disposed of at a landfill approved by ENV. ENV (Fort Worth and Palmdale) and Material Management (Hazardous Waste Operations) and/or ESH (Marietta) will retain manifests, land disposal restriction documents, bills of lading, and other shipping documentation.

Contractor, or their designated representative, shall inspect the job site at the end of each day to ensure all asbestos debris, in the area, has been properly cleaned up.

Abatement Contractors and Subcontractors shall provide a copy of the results of all area, personnel, and/or bulk sampling to the POC.

LM Aero ESH shall approve, in writing, any exceptions to the above.

BLASTING

Blasting operations shall be performed only by experienced personnel.

LM Aero ESH, FPS and Security must be notified of blasting operations at least 48 hours in advance.

No explosives shall be stored on Lockheed Martin/ Air Force property overnight.

The time for blasting and the control of traffic during such blasting must be cleared in advance with ESH and Security.

All blasting areas must have an appropriate “clear” zone established.

CHEMICAL PROCESSING AREAS

To avoid potential hazards or employee exposures, information on fluids contained in piping and tanks shall be obtained from the POC before starting work. No work with loose material and tools shall be performed over tanks. Loose items shall be fastened, with thongs, to a belt or wrist.

All overhead work, above any process tanks, shall be approved by the POC and affected departments prior to performing any work activities.

COMPRESSED GAS CYLINDERS

Cylinders showing evidence of damage or missing or defective components shall not be used. Damaged or defective cylinders shall be removed from service. Threads and fittings of cylinders, regulators, and valves shall not be modified.

All compressed gas cylinders must meet DOT requirements and must have current pressure tests.

Do not lift cylinders with ropes or chain slings.

If a cylinder is designed for a valve protection cap, ensure the cap is in place when the cylinder is not in use, not connected for use, or is being transported.

Do not smoke when using oxygen and/or flammable gases.

Cylinder valves shall be shut off when left unattended (e.g. breaks, lunch, end of work shift).

Store oxygen and fuel gas cylinders a minimum distance of 20 feet apart or separate them by a noncombustible barrier at least five (5) feet high having a fire resistance rating of at least ½ hour. Oxygen and fuel gas cylinders may be stored together, on cylinder carts, only when gases are in use.

Store propane cylinders, not in use on forklifts or other equipment, outside of buildings, in a storage area designated by LM Aero's FPS or ESH Department.

Remove all compressed gas cylinders from LM Aero's premises, upon job completion. Exception: At Fort Worth, contractors assigned an area in the Building 181 Contractor Staging Area may retain their compressed gas cylinders, in their assigned areas, as needed to support continuing operations.

CONCRETE AND MASONRY CONSTRUCTION

All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement.

CONFINED SPACE ENTRY

Contractors shall be informed, by the construction documents, statement of work, and/or their POC, if the workplace contains confined spaces (both permit and non-permit required).

All Contractors are responsible for developing and administering their own Permit Required Confined Space Program. The written program and confined space entries are subject to inspection by LM Aero's S&H Department and the POC. Contractors shall be informed, by their POC, of the elements, including the hazards identified and the experience the LM Aero has concerning the space that makes the space in question, a permit required confined space. The Contractor shall also be informed of any special precautions or procedures that LM Aero has implemented for the protection of employees in or near the permit required confined spaces where Contractor personnel may be working.

The POC shall notify LM Aero's FPS Department of all permit required confined space operations involving Contractor personnel.

Contractors are responsible for obtaining rescue services and providing notification to the POC of the rescue service organization. At Fort Worth a two-way radio shall be obtained from LM Aero's FPS Department prior to entering a permit required confined space.

Joint entry operations involving LM Aero's employees and Contractors shall be under the supervision and control of LM Aero's Entry Supervisor. With joint entry operations between two (2) or more Contractors, the Entry Supervisor shall be designated by the POC. Entry by the POC or any other LM Aero employee into a confined space occupied by Contractor personnel requires a LM Aero Confined Space Entry Permit.

Upon the conclusion of entry operations, Contractors shall be debriefed by the POC regarding the permitted confined space program followed and any hazards confronted or created in the space during entry. A copy of the permit, with any information accumulated by the Contractor concerning the confined space, including his classification of the confined space, hazards/problems encountered, and any comments, shall be forwarded to LM Aero's S&H Department for inclusion into the historical record(s) of the confined space(s).

CRANES AND HOISTING OPERATIONS

Do not use or operate LM Aero's cranes, hoisting equipment, or lifting attachments, without POC approval.

Inspect cranes, hoisting equipment, and lifting attachments before each use. Remove damaged or defective equipment from service. Do not lift loads over personnel.

Ensure crane rail stops, equipped with visible flagging, are installed on all crane rails when work is to be performed in the crane path (e.g. aerial lift operations). Coordinate rail stop installation through the POC.

When requested by the LM POC or ESH representative provides a written lift plan. A written lift plan will include as a minimum:

- Make and model of the crane
- Name of the crane operator, documentation of training and competent person responsible for the execution of the lift plan.
- A copy of the crane's most recent certificate of annual inspection.
- A copy of the cranes maximum loads at various boom angles and radii.
- Utilizing the crane boom angle and radius information identify all loads that will exceed 75% of the crane capability.
- Identify if two or more cranes are required.
- Provide a sketch or drawing of the anticipated boom angle, radius, center of gravity and crane placement.
- Provide a sketch or drawing of anticipated rigging methods to include:
 - Number of slings
 - Type of configuration
 - Size and length of slings
 - Rated capacity of slings
 - Sling angle
 - Size, number and rated capacity of shackles

- Identify number of ground handlers and location of ground handlers
- Communication method between ground handlers and crane operator
- Location of material staging area
- Method of managing vehicle and pedestrian traffic

For helicopter lifts, when requested by the LM POC or ESH representative, provide the following information:

- Name of the Helicopter crane company
- Type and model of helicopter
- Name of pilot
- Intended landing and operating location
- Name of competent person responsible for the execution of the lift plan
- Lift Plan shall include:
 - Maximum helicopter lift capacity
 - Diagram of anticipated rigging
 - Rigging component lift capacity (e.g. 4 each ½ inch wire rope slings, rated for xx lbs, 4 each shackles rated for xxx lbs etc.)
 - Number of ground handlers and location of ground handlers
 - Communication method between ground handlers and pilot
 - Conditions that will terminate the lift (e.g. weather conditions, daylight hours)
 - Material staging area
 - Anticipated flight path to lift materials
 - Method of managing vehicle and pedestrian traffic

DEMOLITION

Projects requiring the demolition or removal of building structural members requires a written 11 working day notification to the POC whether or not asbestos is present in the work area.

ENERGY CONTROL PROCEDURES (LOCKOUT/TAGOUT) /SHUTDOWNS

The Contractor is responsible for developing and implementing their own effective lockout/tagout program that complies with OSHA 29 CFR Part 1910.147, “The Control of Hazardous Energy (Lockout/Tagout)”.

Equipment with sources of hazardous energy (e.g. electrical, mechanical, gravitational, hydraulic, pneumatic, chemical, thermal) shall be locked and tagged out prior to servicing or maintenance work being performed.

The Contractor and POC shall exchange information on each other’s Lockout/ Tagout Programs and identify the lockout and tagout devices to be utilized. LM Aero’s energy control lockout and tagout devices are shown below.



Any work done by a Contractor and LM Aero personnel, on the same equipment, at the same time, shall incorporate both Contractor's and LM Aero's lockout/tagout programs, utilizing lockout/tagout devices from both parties. Palmdale - contractors cleaning, repairing, maintaining or otherwise servicing LM Aero equipment shall use LM Aero's lockout/tagout procedures.

All utility shutdowns shall be coordinated through the POC. Utility shutdowns include electrical, steam, compressed air, domestic water, sanitary sewer, and industrial waste, air conditioning, heating and chilled water systems.

Contractors working on systems at 600 volts and above shall coordinate the shutdown and energy control procedures with the POC and the LM Aero's Plant Engineering Department. Contractors working on systems less than 600 volts shall coordinate with the POC.

Fire protection equipment, including risers, hydrants, fire alarm panels, smoke detectors, valves, fire mains and any other fire protection equipment shall not be activated, altered, changed, deactivated, or worked on until notification is given to, and approval is granted by, LM Aero's FPS Department.

LM Aero's FPS Department shall be notified when work has been completed on any fire protection system and before the system is tested and restored to service.

FALL PROTECTION:

Contractors and their sub contractors performing work above six feet shall:

- Use an approved method of fall protection.
- Not use safety monitoring systems as defined in 29 CFR 1926 (h) unless written approval is obtained from site ESH. Leading edge roof work requires a fall protection system.

LM Aero Steel Erection fall protection requirements can be found in the Steel Erection Paragraph.

HOT WORK (WELDING AND CUTTING) AND TAR POTS

Cutting and/or welding are permitted in fire safe areas only. Within an operating plant or building, cutting and/or welding shall be done preferably in an area designated for such work, such as a maintenance shop or a detached outside location. Such areas shall be of noncombustible or fire-resistive construction, essentially free from combustible and flammable contents, and suitably segregated from adjacent areas. When it is not practical to move work (as in most construction activities) the area shall be made safe by removing combustibles or protecting combustibles from ignition sources (e.g. open flames, hot surfaces, sparks).

Hot work permits are required prior to performing welding, cutting, open flame, hot surface or spark producing operations e.g. grinding, outside of established welding areas. Hot work permits apply to cutting, welding (arc and gas), soldering and brazing operations, and tar pots. Instruction for obtaining hot work permits shall be obtained from the POC. Hot work permits are authorized by LM Aero's FPS Department and must be issued by LM Aero's FPS representative, prior to beginning any operations involving hot work. The duration of permit is specified by the person issuing it and the expiration date and time is noted on the permit. Permit is only good for conditions and location written on permit. Hot work permits shall be posted in the work area.

When an area cannot be made fire safe, LM Aero's FPS Department shall ensure a fire watch is provided. The contractor shall provide a fire watch for all hot work operations and shall notify the LM Aero's FPS after they have performed the required 30 minute follow up. The permit is then signed by the contractor and returned to FPS. LM Aero's FPS Department shall be notified at least 24 hours in advance of planned hot work operations that will require a fire watch.

The Contractor Supervisor, in charge of the work, is responsible for moving all combustibles a safe distance away (at least 35 feet horizontally) and ensuring there are no openings in walls or floors where sparks or slag could fall and ignite combustibles. Flammable and combustible liquids are not allowed within 50 feet of hot work. If this is not possible, it is the Contractor Supervisor's responsibility to protect all exposed combustibles with fire resistant sheeting or blankets, before beginning hot work operations and provide a fire watch. All conditions of the permit must be met before the permit is signed and issued.

Oxygen and acetylene bottles shall only be stored on welding carts when in use.

Hot work shall not be performed in any area where the fire protection sprinkler system is shut down, unless prior approval has been obtained from LM Aero's FPS Department. LM Aero's FPS Department shall ensure fire extinguishers, provided by the contractor, are available in the work area before a hot work permit is issued, and shall insure Contractor personnel are made aware of the location of nearby extinguishers and/or other fire protection equipment (e.g. fire alarm boxes, fire hoses). Contractors are required to

supply fire extinguishers for the hotwork to be performed. Portable fire extinguishers shall be serviceable with appropriate current service tags attached and clearly labeled as belonging to the contractor.

If a flammable atmosphere is suspected, or if the hot work is to be performed in a closed area containing flammables, LM Aero's FPS Department shall evaluate the atmosphere (Lower Explosive Limit (LEL) tests) and specify protective measures to be taken. With approval of the site FPS department, the contractor may make these evaluations. A calibrated atmospheric measuring instrument will be used to perform these tests.

Special precautions shall be taken when welding or cutting metal, which has been used for fuel tanks, regardless of how long the fuel has been drained. The welding or cutting operation shall be ventilated and/or purged with nitrogen. Metals that are contaminated with chemical residue must be decontaminated before welding. Respiratory protection may be necessary for welders, depending on contaminant.

Hot work shall not be performed on any pressurized line (e.g. steam, air, gas, oxygen, acetylene) until pressure is removed and hazardous energy control (lockout/tagout) procedures are implemented. The POC shall be consulted if unsure or questions arise.

Arc welding performed within 30 feet of open aisles or employee work areas, regardless of the height of the welding operation, shall be shielded.

Tar pots shall:

1. not block any exits, means of egress, gates, roadways, or entrances and shall be located a minimum of 10 feet away from exits or other means of egress.
2. not be placed where vapors may enter a building.
3. not be placed within 50 feet of explosives operation or explosives storage facility, without the prior approval of LM Aero's FPS and S&H Departments.
4. not be placed within 25 feet of any flammable or combustible liquid containers or storage areas.
5. not be located inside or on the roof of any buildings.
6. be attended by at least one employee knowledgeable in the operation and hazards of the equipment. The employee shall be within 25 feet of and within sight of the pot, at all times.
7. have 2 fire extinguishers, with a rating of at least 20 B. Fire extinguishers shall be located within 25 feet of the tar pot.

Used roofing mops and rags shall be stored away from buildings and combustible materials. Discarded roofing mops and rags shall not be in contact with combustible materials.

IONIZING RADIATION

Contractors, utilizing ionizing radiation sources (radioactive materials or radiation producing machines), shall comply with all State or Nuclear Regulatory Commission (NRC) regulations.

Contractors using sources of radiation shall have any required license or registration. Out of state contractors shall notify the applicable local radiation regulating agency where the radiation source will be used and gain approval prior to performing any operations.

A copy of the Contractor's license or registration, radiographer's qualifications, and a site safety plan shall be submitted to LM Aero's S&H Department prior to performing any radiographic operations.

Radiation sources shall not be stored overnight or left unattended on LM Aero's premises without prior authorization by LM Aero ESH. If permitted, equipment shall be stored in accordance with all local regulations and must be disabled (key removal, electronic keypad lock or other equally effective means).

LASERS

Lasers used at LM Aero's site shall comply with the requirements of State regulations as well as any other applicable Federal requirements in 21 CFR Part 1040 and industry standard ANSI Z136.1.

The POC must be notified in advance of operations requiring the use of Class IIIB and/or Class IV laser or laser products prior to entry into LM Aero's facility. The POC shall communicate this information to LM Aero's S&H Department.

Any Contractor suspected of being exposed to laser operations shall seek medical attention and report the exposure to their POC, who will pass the information onto LM Aero's S&H Department.

LEAD

Contractors will not perform work that involves lead unless specifically contracted to do so under the contract and is qualified to perform such work in accordance with 29 CFR 1926.62- *Lead* and its related appendices.

All painted surfaces shall be assumed to contain lead or other hazardous metals.

PAINTING

Painting shall be coordinated through the POC to prevent disruption to LM Aero's operations.

If painting in a confined space, evaluate the area for hazards and follow confined space entry requirements, coordinating with the POC. Contractor personnel shall comply with the applicable requirements of OSHA 29 CFR Part 1910.146 (or equivalent state OSHA requirement).

If painting on roofs, close air intakes for air handling systems to prevent intake of vapors into the ventilation system.

Do not use walls or partitions made of cardboard, plastic, or other combustible material, unless authorized by LM Aero's FPS/ESH Department.

Ensure that all paint containers are properly stored and paint related wastes are properly disposed.

POWDER-ACTUATED TOOLS

Only trained Contractor personnel shall use powder-actuated tools.

Powder-actuated tools shall not be used in an explosive or flammable atmosphere.

The tool, studs, and cartridges shall be kept in a safe area. Only authorized Contractor personnel shall have access to the storage area. Tools or powder loads shall never be left unattended in a place where they would be available to unauthorized person. Boosters and cartridges shall be kept in a storage container under lock and key.

Misfires shall be identified, isolated and properly disposed.

SCAFFOLDS

Contractors shall be familiar with the type of scaffolds being used and the requirements specific to each type.

Erect, move, dismantle, or alter scaffolds only under a Competent Person's supervision and direction. Ensure work is performed only by experienced and trained personnel selected for such work by the Competent Person

The feasibility and safety of providing fall protection for personnel erecting or dismantling supported scaffolds is to be decided by a Competent Person. Fall protection shall be provided when erecting or dismantling scaffolds where the installation and use of such protection is feasible and does not create a greater hazard.

Scaffolds and scaffold components are to be inspected by a Competent Person for visible defects before each work shift and after an occurrence, which could affect a scaffold's structural integrity. Documentation of the scaffold inspection shall be maintained on the scaffold.

STEEL ERECTION

Activities involving steel erection issues shall conform to 29 CFR 1926 Subpart R- *Steel Erection*. Contractors and their subcontractors shall:

- Use an approved method of fall protection.
- Accomplish a written Job Safety Analysis for all steel erection work and provide the Fall Protection Job Safety Analysis to LM POC or LM ESH when requested.
- Not use safety monitoring systems as defined in 1926 (h) unless written approval is obtained from site ESH.

Attachment A

HELPFUL TELEPHONE NUMBERS

Fort Worth

Emergency Only Numbers

To Report a Fire, Chemical Spill or Medical Emergency

In-plant extension.....911

When calling from a cellular telephone.....817-777-3473

Non-Emergency Numbers

Environmental, Safety & Health (ESH Hotline).....817-777-5151

Fire Protection Services.....817-777-2163 or 817-777-2164

Plant Engineering..... 817-777-3134 or 817-777-3135

Facility Protection Services

 In-plant extension.....7-2567 or 7-2569

 When calling from a cellular.....817-777-2567 or 817-777-2569

 Gate 2.....817-777-4507

 (After Hours) Gate 6.....817-777-4513

POC _____

Office Telephone Number _____

Pager Number _____

Cellular Telephone Number _____

Marietta

Emergency Only Numbers

Fire - Fire Protection Services.....770-494-4911
Emergency Cell 770-494-3244

Non-Emergency Numbers

Environmental, Safety and Health – General Information 770-494-4121
Environmental Resources Department 770-494-6428
Hot Work Permits – Fire Protection Services 770-494-3970
Hazardous Waste Management – (Collection / Spills / Disposal) 770-494-4936 / 37
877-620-9398 (pager)
Safety – Days: 7:00 – 4:30 p.m. 770-494-4121
Safety – Swing shift: after 4:30 p.m. 770-494-2446
Environment, Safety & Health (nights, weekends, and holidays) 678-733-0035
Facilities Engineering/Support Facilities Maintenance Desk 770-494-2951
Facilities Engineering & Support 770-494-2762
Medical - Information 770-494-4131
Security – General Information 770-494-3473
HELP/Emergency (off site) 9-911
HELP/Switchboard (in-plant) 4-HELP (4-4357)

POC _____

Office Telephone Number _____

Pager Number _____

Cellular Telephone Number _____

Palmdale

Emergency Only Numbers

To report a fire, chemical spill or other emergency:

- At Plant 10, dial 911
- At Sites 2, 7, or 8, dial 911

POC _____

Office Telephone Number _____

Pager Number _____

Cellular Telephone Number _____

Attachment B

Contractor Orientation Checklist Safety and Health Program

CONTRACTOR ORIENTATION CHECKLIST

SAFETY and HEALTH PROGRAM

Contractor: _____

Contractor Representative: _____

Date of Orientation: _____ LM Aero Point of Contact: _____

Representatives of the above named contractor received orientation on the LM Aero Safety and Health program on date above. Specific orientation topics are listed:

- ___ Applicable OSHA/CalOSHA regulations
- ___ Contract specific Safety and Health requirements
- ___ LM Aero Contractor Safety and Health Programs
- ___ LM Aero Contractors Safety Handbook
- ___ LM Aero AeroCodes applicable to the contracted tasks
- ___ LM Aero Hazard Communication Manual
- ___ Contractor's participation in International Standard Organization (ISO) 14001
- ___ Operations specific Safety and Health requirements (as applicable)
 - ___ Hazard Communication
 - ___ Control of Hazardous Energy (Lockout/Tagout)
 - ___ Confined Space Entry
 - ___ Welding and Cutting (Hot Work Operations)
 - ___ Fall Protection
 - ___ Scaffold erection
 - ___ Steel erection
 - ___ Excavation
 - ___ Crane Operations
 - ___ Ionizing and non-ionizing radiation (lasers, RF)
 - ___ Other _____
 - ___ Other _____
 - ___ Other _____
 - ___ Other _____

Contractor is responsible for insuring flow-down of this information to all levels of employees working on the project. Contact Safety & Health if additional information is needed.

POC Signature: _____

Contractor Signature: _____

Attachment C
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Attachment I Competent Persons (Marietta)

The Competent Persons form can be found at the following external web site and is applicable to LM Aero-Marietta:

<http://www.lockheedmartin.com/aeronautics/materialmanagement/terms/ESH.html>

Example form

Reference Only - Use the most current form in the LM Forms Library. This is a Marietta form only.

Lockheed Martin Aeronautics Company - Marietta

CONTRACTOR COMPETENT PERSON DESIGNATION

OSHA Standard Requirements	Applicable to Subcontractor (yes / no)	Designated Competent Person (Name)
Subpart D - Health and Environmental Controls		
1926.53 Ionizing Radiation	<input type="checkbox"/> <input type="checkbox"/>	
1926.55 Gases, Vapors, Fumes, Dusts, Mists	<input type="checkbox"/> <input type="checkbox"/>	
1926.57 Ventilation	<input type="checkbox"/> <input type="checkbox"/>	
1926.62 Lead	<input type="checkbox"/> <input type="checkbox"/>	
Subpart E - Personal Protective Equipment		
1926.101 Hearing	<input type="checkbox"/> <input type="checkbox"/>	
1926.103 Respirator Protection	<input type="checkbox"/> <input type="checkbox"/>	
Subpart H - Materials Handling, Storage		
1926.251 Rigging Equipment for Material Handling	<input type="checkbox"/> <input type="checkbox"/>	
Subpart J - Welding and Cutting		
1926.354 Welding, Cutting and Heating	<input type="checkbox"/> <input type="checkbox"/>	
Subpart K - Electrical		
1926.404 Wiring Design and Protection	<input type="checkbox"/> <input type="checkbox"/>	
Subpart L - Scaffolding		
1926.451 Scaffolding	<input type="checkbox"/> <input type="checkbox"/>	
Subpart M - Fall Protection		
1926.502 Fall Protection Criteria and Practices	<input type="checkbox"/> <input type="checkbox"/>	
1926.503 Training	<input type="checkbox"/> <input type="checkbox"/>	
Subpart N - Cranes, Derricks		
1926.550 Cranes and Derricks	<input type="checkbox"/> <input type="checkbox"/>	
1926.552 Hoists and Elevators	<input type="checkbox"/> <input type="checkbox"/>	
Subpart P - Excavations		
1926.651 Specific Excavation Requirements	<input type="checkbox"/> <input type="checkbox"/>	
1926.652 Requirements for Protective Systems	<input type="checkbox"/> <input type="checkbox"/>	
Subpart Q - Concrete and Masonry Construction		
1926.705 Lift-Slab Operations	<input type="checkbox"/> <input type="checkbox"/>	
Subpart R - Steel Erection		
1926.753 Hoisting and Rigging	<input type="checkbox"/> <input type="checkbox"/>	
1926.754 Structural Steel Assembly	<input type="checkbox"/> <input type="checkbox"/>	
1926.755 Column Anchorage	<input type="checkbox"/> <input type="checkbox"/>	
1926.756 Beams and Columns	<input type="checkbox"/> <input type="checkbox"/>	
Subpart S - Tunnels, Shafts, Caissons		
1926.800 Tunnels and Shafts	<input type="checkbox"/> <input type="checkbox"/>	
1926.803 Compressed Air	<input type="checkbox"/> <input type="checkbox"/>	

Important Notice: A hard copy of this blank form may not be the version currently in effect.
The current version of this form is the version in the LM Intranet.

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OSHA Standard Requirements	Applicable to Subcontractor (yes / no)	Designated Competent Person (Name)
Subpart T – Demolition		
1926.850 Preparatory Operations	<input type="checkbox"/> <input type="checkbox"/>	
1926.852 Chutes	<input type="checkbox"/> <input type="checkbox"/>	
1926.859 Mechanical Demolition	<input type="checkbox"/> <input type="checkbox"/>	
Subpart U – Blasting and Use of Explosives		
1926.900 General Provisions	<input type="checkbox"/> <input type="checkbox"/>	
1926.901 Blaster Qualifications	<input type="checkbox"/> <input type="checkbox"/>	
Subpart V – Power Transmission and Distribution		
1926.955 Overhead Lines	<input type="checkbox"/> <input type="checkbox"/>	
Subpart X – Stairways and Ladders		
1926.1053 Ladders	<input type="checkbox"/> <input type="checkbox"/>	
1926.1060 Training Requirements	<input type="checkbox"/> <input type="checkbox"/>	
Subpart Z – Toxic and Hazardous Substances		
1926.1101 Asbestos	<input type="checkbox"/> <input type="checkbox"/>	
1926.1127 Cadmium	<input type="checkbox"/> <input type="checkbox"/>	

I certify that the listed employees are competent persons, as defined and required by specific OSHA standards. They are individual(s) capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Name (print)

Contractor Signature

Company Name

Date

Please complete form and return to your LM Aero – Point of Contact (POC).
If you need additional information, please contact ESH at (770) 494-4121.

Attachment J Pollution Prevention Checklist (Marietta)

The Pollution Prevention Checklist form can be found at the following external web site and is applicable to LM Aero-Marietta:

<http://www.lockheedmartin.com/aeronautics/materialmanagement/terms/ESH.html>

Example form

Lockheed Martin Aeronautics Company - Marietta

LOCKHEED MARTIN

Reference Only - the most current form is in the LM Forms Library. This is a Marietta form

CONTRACTOR

POLLUTION PREVENTION/ENVIRONMENTAL IMPACT REDUCTION CHECKLIST

Provide a brief explanation for those items checked / marked "No".

Ecosystem Concerns

Yes No N/A Does the Construction and Demolition (C&D) proposal specify that contractors should cause the least possible disturbance to the site's vegetation? For example, under certain circumstances, it may be possible to preserve trees or stands of old growth that would otherwise be destroyed.

Yes No N/A Does the C&D plan provide for erosion and sediment control during construction as well as after? Uncontrolled soil erosion can have adverse effects on local water bodies and aquatic life. Land disturbances of 1 acre or greater.

Yes No N/A Will soil excavated from the C&D site be reused? Topsoil can be re-spread in areas to be landscaped to enhance plant health. All soil piles and contractor containers (roll-offs) shall be identified with signs or labels that tell the contents, waste classification, and responsible individual phone number.

Yes No N/A Does the plan include the revegetation of areas disturbed by C&D?

Yes No N/A Is there a plan to reduce the use of materials containing constituents that can negatively affect the environment?

Yes No N/A Is there a spill control and countermeasure plan to properly address spills of hazardous C&D materials?

Procurement Concerns

Yes No N/A Will the project include the use of durable, long-lasting materials that will not need to be replaced as often, thereby reducing the amount of C&D waste generated over time?

Yes No N/A Are there provisions for the proper storage of C&D materials to reduce the amount of waste caused by damage or exposure to the elements?

Yes No N/A Will perishable C&D materials (such as paints) be purchased incrementally to ensure reduced spoilage of unused materials?

Yes No N/A Will the project use building materials that have minimal packaging to avoid the generation of excessive packaging waste?

Yes No N/A Will the project use building materials that are produced locally to avoid energy use and pollution generated from transportation?

Yes No N/A Will the project use C&D materials containing recycled material when possible and in accordance with accepted standards?

Yes No N/A Does the C&D plan include the use of alternative, environmentally preferable construction materials? Alternative construction materials include lumber products containing recycled plastic and/or wood, lead-free and low-VOC paints and coatings, HVAC systems containing non-ODCs, and recycled steel for use in building frame applications.

Reuse and Recycling

Yes No N/A Will the C&D proposal specify that construction materials left over at the end of the project be reused in other projects rather than be disposed of?

Yes No N/A Will the C&D proposal specify that construction materials that are damaged or wasted be recovered for refurbishing and use in other construction projects?

Yes No N/A Is there a plan to use or sell trees cut down during C&D activities as lumber or compost?

Yes No N/A Will any metal, wood, concrete, paving material or packaging wastes be generated as a result of C&D activities be collected for reuse or recycling into other usable products? Commonly recycled C&D materials include concrete, paving material, asphalt roofing material, metals, and structural wood.

Yes No N/A Will mercury-containing materials recovered in any renovations of existing structures be recycled? Fluorescent lamps, thermometers, and thermostats are examples of mercury containing components.

Energy Efficiency

Yes No N/A Does the C&D plan specify the use of "low-embodied energy" construction products whenever possible? The energy required to make a product should be considered in making purchasing decisions.

Yes No N/A Does the C&D plan specify the use of energy efficient lighting systems containing low mercury, non-lead containing fluorescent lamps (Phillips Alto Lamps)?

Yes No N/A Will preference be given to purchasing energy-efficient electric products and equipment (such as appliances and heating and cooling systems)?

Yes No N/A Does the C&D plan call for sufficient insulation to reduce heat loss and conserve energy?

Print Name: _____ Company Name: _____

Contractor Signature: _____ Date: _____ Project Location: _____

Please complete form and return to your LM Aero - Point of Contact (POC). If you need additional information, please contact ESH at (770) 494-4121.

Important Notice: A hard copy of this blank form may not be the version currently in effect.
The current version of this form is the version in the LM Intranet.

11170-063(2004)

Attachment K
Sample Contractor Safety Data Request Letter for LM Aero Fort Worth

LM Aero Fort Worth VPP Contractor Safety Performance Data

Lockheed Martin Aeronautics Company (LM Aero) Fort Worth is committed to promoting and improving the health and safety of all personnel who work on-site at the Fort Worth facility. This includes contractor employees as well as LM Aero employees. LM Aero Fort Worth is preparing to submit an application for recognition under the Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP). VPP recognizes the top safety performers in industry and provides for cooperation between OSHA, industry, and their employees that is designed to improve and enhance the health and safety of everyone who works at a VPP site. One of the requirements for recognition under the VPP program is a system for monitoring and reporting the on-site safety performance of contractors who perform 1000 or more cumulative man-hours of on-site work in a calendar quarter.

LM Aero records indicate that your company may have performed work on-site at its Fort Worth facility during calendar year (YEAR). Enclosed you will find a copy of Form number XXXX that requests injury and illness data for workers who worked on the LM Aero Fort Worth site during (YEAR). The form requires inputs for each of the four quarters in (YEAR). If your company did not work 1000 man-hours during any quarter, then simply check the applicable box. If your company did work 1000 or more man-hours in a quarter, please enter the requested data. Remember to reflect only data for injuries and illnesses that were incurred by workers while they were working on the LM Aero Fort Worth site.

Please complete the form for each quarter of (YEAR) and submit the form to the LM Aero Fort Worth Environment, Safety, and Health (ESH) Department as soon as possible after the end of (YEAR), but not later than February 1, (YEAR + 1). Send the completed form to:

Lockheed Martin Aeronautics Company
Attention VPP Coordinator
P.O. Box 748, MZ 6875
Fort Worth, TX 76101

You may send the form electronically by fax or e-mail as follows:

Fax: 817-763-7476
E-mail:edward.d.daniels@lmco.com

SAMPLE FORM XXXX

Lockheed Martin Aeronautics Company – Fort Worth is preparing to submit an application for recognition under OSHA’s Voluntary Protection Program (VPP). The Voluntary Protection Program is designed to recognize and promote effective safety and health management. Changes have been made to the VPP which require VPP work sites to provide certain information concerning their injury and illness data each year. One requirement is the collection of injury and illness data from our "resident" or "applicable contractors". OSHA is only interested in those injuries and illnesses that occurred on our worksite. OSHA defines an "**applicable “Contractor”**" as, "*those employers who have contracted with the site to perform certain jobs and whose employees worked a total of 1000 or more hours in at least 1 calendar quarter at the worksite.*" You are receiving this letter because we believe you may qualify under this definition. We are requesting from you the following data:

- 1) Total OSHA recordable injuries and illnesses for calendar year (YEAR);
- 2) The total number of recordable injury and illness cases involving missed work days and restricted work activity;
- 3) Hours worked in each quarter to arrive at a year end total, and;
- 4) Estimated average employment at the Fort Worth site for the past full calendar year.
- 5) North American Industry Classification System (NAICS) code for your business.

Recordable occupational injuries or illnesses are defined in 29 CFR 1904.7 (Definitions) as any occupational injuries or illnesses which result in:

1. *Fatalities; or*
2. *Lost workday cases that result in lost workdays; or*
3. *Nonfatal cases without lost workdays which result in transfer to another job or termination of employment or require medical treatment (other than first aid) or involve: loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illnesses which are reported to the employer but are not classified as fatalities or lost workday cases.*

Information for items 1 & 2 can be obtained from a review of your company’s OSHA No. 300 “Log of Work-Related Injuries and Illnesses” (if you are required to keep one, applies to employers with 10 or more employees at all times during the calendar year) and/or accident reports.

Further information can be found in Federal Register # 65:45649-45663, dated 7/24/00 at this link.

<http://www.osha.gov>

It is imperative that you submit the data to the ESH Department no later than February 1, (YEAR + 1).

Please complete the attached questionnaire and if you should have any questions, feel free to contact Ed Daniels at (817) 777-6951.

Year (YEAR) OSHA Recordable Injury and Illness Data for the Fort Worth site

Company Name: _____

Date: _____

NAICS Code: _____

Check box if it does not apply due to insufficient hours (<1000 hours) in all calendar quarters; otherwise complete items below for applicable quarters.

1st Quarter

Total hours worked _____
of Recordable injuries and illnesses at LM Aero – Fort Worth _____
of Recordable injuries and illnesses cases involving days away from work and restricted work activity _____

2nd Quarter

Total hours worked _____
of Recordable injuries and illnesses at LM Aero – Fort Worth _____
of Recordable injuries and illnesses cases involving days away from work and restricted work activity _____

3rd Quarter

Total hours worked _____
of Recordable injuries and illnesses at LM Aero – Fort Worth _____
of Recordable injuries and illnesses cases involving days away from work and restricted work activity _____

4th Quarter

Total hours worked _____
of Recordable injuries and illnesses at LM Aero – Fort Worth _____
of Recordable injuries and illnesses cases involving days away from work and restricted work activity _____

Total # of hours worked in (YEAR) _____

Contractor Contact Name: _____ Phone Number: _____

Please return completed form by fax to VPP Coordinator at (817) 763-7476 or by e-mail to edward.d.daniels@lmco.com by **February 1, (YEAR + 1)**.