



TRIM

FOLD

FOLD

FOLD

and serviced once a year. There must be a minimum of a 20 pound 20A 10BC dry chemical fire extinguisher within the work area. In addition, a fire watch must be present during and at least 60 minutes after hot work who will not be doing the actual hot work. Any flammables or floor or wall openings within 35 feet of hot work must be covered with tarps. Ensure protection of any combustible materials within the walls prior to hot work. If work is conducted indoors, the contractor will verify that the sprinklers are operational and any smoke alarms are temporary shut off. Coordination of the alarm outages must be with the point of contact.

Housekeeping

Safety performance is correlated with housekeeping and you are responsible to keep your areas free of trash and organized at all times while not blocking exits or storm drains. Certain areas may require storage of equipment in a gang box while certain quantities of flammable materials must be stored in an approved flammable materials cabinet. Areas must be swept while other areas requiring abatement of asbestos, lead and mold will require the use of a HEPA vacuum. Compressed air shall not be used for self-cleaning purposes unless reduced to a pressure less than 30 p.s.i. and then only with effective chip guarding and when wearing personal protective equipment.

Industrial Trucks and Personal Lifts

Contractors must be trained to operate specific equipment and provide certificates on request. Equipment must be inspected prior to use each day and documentation shall present for review. Forklift operating rules must be posted in frequented areas by the forklift operator(s). If front end attachments are different than factory attachments on forklifts, contractor must determine the capacity of the truck and attachment at maximum elevation with the load laterally centered. No modifications or structural changes of truck without providing manufacturer's approval and instruction plate changed accordingly.

Ladders

Non-conductive fiberglass ladders will be used on site. Face the ladder when ascending or descending and maintain 3 point contact. Ladders must support four times the attended load and rungs free of oil residue. Ensure ladders are inspected before use. Stage the ladder on an even and solid surface. Store ladders horizontally away from passageways or secure them vertically against a wall. Use as intended



and do not climb an A-frame ladder when leaning against a structure or excavation. Do not stand above belt height or the last two steps. Extension ladders are to be positioned as such so the horizontal distance from the top support to the foot of the ladder is about 1/4 the working length of the ladder. Extend ladder three feet from the roof line and secure.

Lead

Wood and metal surfaces painted prior to 1978 are likely to be covered with lead-based paint or lead containing corrosion inhibiting primers/coatings. Collect sample(s) of suspect lead-based painted surfaces for off-site laboratory analysis prior to initiating any activity on any painted or coated surfaces that involves scraping, abrasive blasting, sanding, cutting, sawing, burning, torch cutting, arc cutting, welding or brazing. If the concentration of a lead sample is at or exceeds 0.06% or 600 parts per million (ppm) and depending on the extent of abatement, ESH will make a determination to hire an abatement contractor to submit an abatement plan with accompanying training certifications from an accredited training provider for review and acceptance. A third-party air monitoring contractor will also be selected by Northrop Grumman. When removing greater than 100 square of linear feet lead-containing materials above 0.5% or 5,000 ppm, the contractor will need to notify DOSH prior to project initiation.

Mold

Molds are the most common fungi found on earth. They resemble woolly mats and mildew is a type of mold and appears black. Some molds even produce a foul odor. They are associated with drywall, carpeting and other porous building components containing moisture. ESH must be notified of any water leaks in order to measure the impacted areas for moisture to and recommend mitigation methods such as dehumidifiers to control mold growth. Depending on the extent of mold remediation, ESH could request from the contractor an abatement plan with respiratory certifications.

Noise

Manual hand tools and electrical equipment often generate noise at levels considered to be a nuisance or even permanently cause hearing loss. Given hearing loss can be permanent, contractors must protect themselves from excessive noise by wearing a type of hearing protection specific to level and frequency of noise. Ensure your company maintains a written hearing conservation program if levels exceed 85



decibels. Conduct routine hearing tests and provides training on how to wear employer supplied hearing protectors. Cal/OSHA requires hearing protection to be worn when the 8 hour time weighted average is 90 dbA and Northrop Grumman may recommend a noise monitoring assessment. Not only does noise causes hearing loss, it could distract a contractor from conducting a task safely. Contractors must also consider Northrop Grumman employees as well as residents during construction activities, and excessive noise tasks may need to be done during off hours. Consult local agency for operations and permitting requirements.

Personal Protective Equipment

Your employer must determine the appropriate personal protective equipment to be worn for the hazards you work with and train you on how to use this equipment as well as its limitations. Cal-OSHA's respirator and hearing conservation standards also require your employer to conduct health monitoring as well as have written programs for their use. Regardless of whether or not the program is in writing, if your employer provides you with the equipment, it is your responsibility to wear the protective equipment correctly. It is important to minimize the risk of chemical exposures in consideration of Northrop Grumman personnel, given that most personnel do not routinely wear personal protective equipment. Otherwise, consider conducting your construction activity during off hours.



Tools

Tools are part of every contract job and shall be used a safe manner and not altered from manufacturer specifications. There are additional requirements for powder actuated tools such as the tool must be kept in a lockable case when not in use and the contractor must carry a valid operator's training card. Powder actuated tools shall not be loaded until just prior to use and a sign must be posted in the area of use indicating Caution: Powder Actuated Tool in Use.

Scaffolds

Scaffolds serve as a temporary work platform associated with many construction projects at Space Park. Because of their inherent design characteristics of working at heights associated with falls or collapse of the scaffolds, it is important that a scaffold is erected and dismantled under the direction and supervision of a qualified person possessing certification of competency. Additionally, tube and coupler



scaffolds must be designed by a Registered Professional Engineer above 125 feet. Metal scaffolds must be tied, guyed or outriggers be used when the scaffold exceeds three times its base. Ensure planks are close together and that standard guardrails as well as 4-inch high toe-boards are installed on all open ends of the scaffold. Ensure all scaffolds are able to sustain their maximum intended load and the load is posted at a conspicuous location preferably on the inspection tag. The scaffolding company is required to notify DOSH 24 hours in advance of erecting platform scaffolds in excess of 36 feet. Suspended or swing stage scaffolds are connected to outrigger beams capable supporting at least four times their intended load and tied back to solid structure. A harness and lanyard must be worn in the swing stage and have independently anchored drop lines. Powered suspension scaffolds additionally have a manual over ride to lower the unit at a safe speed if power is lost. Northrop Grumman requires the qualified contractor to inspect any scaffold daily prior to use.

Smoking

Smoking is allowed in designated areas 100 feet from building entrances. At no time is a person is allowed to smoke and conduct construction activities.



Water Quality

During any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre, construction contractors must implement specific Best Management Practices or BMPs, achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level. Discharge of sediment will be strictly monitored by the contractor prior to entering the storm drain.



NORTHROP GRUMMAN

CONTRACTOR PAMPHLET

Requirements for Your Safety, Health and the Protection of the Environment

Northrop Grumman Corporation
Space Park Facility

IMPORTANT TELEPHONE NUMBERS

Emergency Numbers

Life Threatening (Fire, medical emergency, uncontained hazardous material spill, threat to life)
310.812.9911

Non-Life Threatening (Outages, flood, security escort request, contained hazardous material spills)
310.812.9711

Non-Emergency Numbers

Environmental Safety and Health (ESH) (Compliance questions, hot work request)
310.813.2700

EMERGENCY

If the alarm sounds, secure what you are doing and immediately report to the designated evacuation staging area. Ask the point of contact for the location of the evacuation staging area. In an earthquake, duck under a table or other cover and keep clear from the overhead building components.

NORTHROP GRUMMAN

GMD_19485_2/2011

TRIM

OUTSIDE

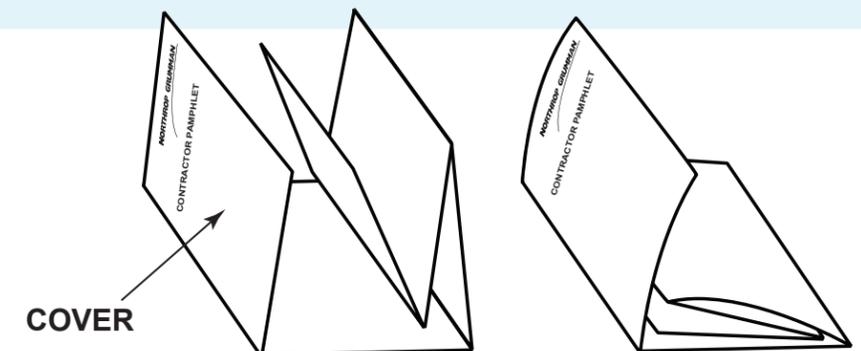
Printing Instructions:

Print on 11" x 17" (Tabloid) paper.

Turn the print over and re-insert into the print tray making sure the arrow is facing in the "up" direction. Print the "contractor_B" pdf. file to make a two-sided pamphlet.

Trim on solid lines, accurately make folds on dashed lines indicated on this side.

Fold as shown to fit in pocket.





RESPONSIBILITIES

While conducting contract work at Northrop Grumman Space Park, you must comply with this Contractor Pamphlet as well as the following Northrop Grumman ESH Programs and postings:

- General Safety and Environmental Rules for Contractors
- Contractor Notification List
- Warning signs

Additionally, your employer and/or General Contractor are responsible for:

- Providing you with safe work procedures
- Conducting weekly tailgate meetings and documented safety inspections
- Providing first aid and directions to the medical facility
- Enforcing applicable environmental safety regulations as well as to your subcontractors
- Correcting any deficiencies or notifying the point of contact
- Submitting an Injury Illness Prevention Program to point of contact for ESH review
- Having a recognition program for performance
- Implementing a disciplinary procedure for any infractions noted by any representative
- Obtaining any permits in accordance with applicable State and local regulations
- Providing you all personal protective equipment
- Retaining applicable training certifications

Contractors who fail to follow ESH Programs will be subject to management review in determining the level of disciplinary action.

Air Quality

The South Coast Air Quality Management District (SCAQMD) indicates certain equipment must have a permit. Such equipment includes air guns, abrasive blasting, concrete crushers and distillation units. Permitted equipment must be operated within permitted conditions, including monitoring and recordkeeping. Internal combustion engines such as generators used for construction activities above 50 horsepower must also be permitted, but need not retain recordkeeping data. All permit fees are the responsibility of the contractor. Except for generators, permits must be provided to ESH in advance of the equipment arriving on site. Solvent cleaning must be carried out under SCAQMD rules. Uncontrolled emissions of dust, odors and smoke are prohibited.



Asbestos

Because of their insulation, heat resistance and other inherent properties, asbestos containing materials (ACMs), were once used in building materials such as pipe insulation, floor tiles, floor adhesives and roofing materials. If disturbed, the fibers could become airborne and potentially result in adverse health effects. It is for your protection the ESH department is notified of any suspect ACMs in order to determine appropriate action prior to removing or managing ACMs. Certain construction projects will require the use of an approved abatement contractor who will be required to prepare an abatement plan while the point of contact will contract a third party contractor to conduct air monitoring.

*Confined Space

Contractors requesting an entry into an on-site confined space must have submitted a written confined space entry program within the past year for ESH review and acceptance. The program shall include permit system for preparing and canceling permits, copy of the contractor's permit, written safe entry procedures as well as rescue procedures. Calibration records as well as training certifications for entrants, attendants, supervisors and applicable rescue personnel will be reviewed for each entry. First aid and CPR certifications will be requested if contractors will conduct their own rescue. Contractors will notify ESH 48 hours in advance of entry to receive a notification tag. The contractor is responsible for completing and posting their entry permit as well as tag at point of entry. Contractor is responsible for all air monitoring, ventilation and rescue equipment.

**Denotes a permit is required to be completed and accepted by ESH prior to work.*

Crane (mobile) and Helicopter Lifts

Contractors are required to complete a crane lift plan (Form 8378) for ESH review and acceptance. Contents of the lift plan include the date of the proposed lift, crane type (e.g. telescopic boom, lattice boom, etc.) description of the proposed lift, description of rigging including their capacities and a contingency if the load drops. The crane company must also submit crane operator's certificate (unless boom less than 25 feet or maximum rated load capacity of less than 15,000 pounds) load calculation worksheet and load charts for crane and rigging and the State of California Department of Industrial Relations (DOSH) annual and quad-annual (4 years) proof load certification(s) if the crane is greater than 3 tons. Once approved, the crane operator is required to conduct an inspection and document inspection of the day of and prior to the lift (Form 8378). All helicopter lifts will require a set of safe operations to be enforced per Cal-OSHA as well as notify DOSH 24 hours in advance of lift. Assume all power lines are energized and ensure you maintain at least 20 feet from all power lines in accordance with Cal-OSHA requirements.



*Electrical Safety

Contractors must submit to the point of contact an accepted electrical safety program to work on electrical systems. The contractor is required to follow Northrop Grumman's available energy control procedure or develop their own energy control procedure. All energy sources must be tagged out as well as locked out utilizing a variety of breaker or other control switch devices. The tag must be a non re-usable type, support at least 50 pounds of pull and must indicate the name of the contract employee, the contract company, name, date of installation as well as the reason for de-energizing the switch/panel. Ensure the electrical circuits are tested with a calibrated meter by a qualified electrical worker to verify "ZERO" energy state and notify Facilities (310.813.2773). Training records must be reviewed and accepted by the ESH department, followed by notifying Facilities (310.813.2773). Utility Outage Form (6482) must be completed by the point of contact and Northrop Grumman Facilities must be contacted 24 hours in advance of the shut down. In fewer circumstances, the contractor must work on electrical equipment "energized" and must have submitted training records covering the NFPA 70E Standard to the ESH department for review and acceptance. Additionally, the contractor must submit to ESH an Energized Work Permit in conformance with NFPA 70E as well as notify Northrop Grumman Facilities prior to initiation of energized work.



**Denotes a permit is required to be completed and accepted by ESH prior to work.*

Excavations

Contractors are required to mark the area with white marking paint, notify Dig Alert 48-hours in advance, review all prints as well as contact a qualified company to conduct a subsurface survey. Excavations 5 feet or greater will require a project permit or an annual permit from Cal-OSHA if a person is to enter the excavation. Those contractors with an annual or project permit will be required to notify DOSH 24 hours prior to entry. A competent contract person will ensure the soil is classified to determine slope as well as inspected daily prior to entry per Cal/OSHA requirements. There must be an extension ladder in the excavation at a depth of 4 feet or greater as well as and every 25 feet of lateral travel. Excavations greater than 20 feet will be designed by a registered professional engineer and reviewed by ESH. Confined space requirements such as air monitoring, permitting and training may also be required during certain excavations.



Fall Protection

Fall protection equipment is required to be worn at Northrop Grumman anytime above 6 feet on a platform without a railing, within 6 feet of an unprotected sky light, or within 6 feet of the roof's edge without a 24-inch parapet. Equipment shall be rigged so a contractor cannot free-fall more than 6 feet and be secured at or above the waist level. Self-retracting lifelines or YO-YOs are sometimes used as part of a fall arrest system and anchorages must support at least 3,000 pounds and limit the free fall distance of 2 feet. A lanyard or vertical lifeline attached to anchorages for personal fall arrest shall be attached to separate anchorages to a suspended platform and must be capable of supporting at least 5,000 pounds. However, anchorages for horizontal lifelines are generally used as a component of a self-restraint device and must be capable of supporting 4 times the attended load and allow the movement of workers only as far as to the sides of the work level. Fall protection will be required to be worn in boom lifts, scissor lifts with anchorage points as well as suspended scaffolds and other lifting equipment. Equipment must be inspected for wear and deterioration prior to each use as well as equipment must be inspected and documented by a competent person biannually utilizing the manufacturer's recommendations. Given the multitude of equipment and site potential hazards, Northrop Grumman Space Park will review a task-specific fall protection safety plan, including rescue procedures.



Hazardous Materials and Waste

Northrop Grumman Space Park requires all hazardous materials to be approved **prior to bringing the products on the site**. In order to determine eligibility, a contract representative must log into the "OASIS" database: https://oasis.northgrum.com/st/docs/SP_CONTRACTORS_LIST.pdf. A product may be approved for use on site with or without restrictions. If a product is approved for use, it may be used on site as long as the specified restrictions are followed. If the product is denied for use at Space Park, it is not allowed on site and an alternate product must be found. If the product is not on the list or a case by case review is required, a contract representative will be required to complete Northrop Grumman Systems Form 7394 "Contractor Hazardous Material/Waste List" and indicate the quantity proposed to be used and how the product will be applied. Legible and current material safety data sheets are also required to be submitted along with the Systems Form 7394 to the point of contact. The ESH Department will review the product for compliance with regulations and will inform the point of contact whether it is approved, restricted, or denied for use at Space Park. If approved or restricted, the point of contact will provide "Supplier Hazardous Material" Stickers to be placed on product containers to indicate the product has been approved for use at Space Park.



Certain materials removed from Space Park buildings may be considered a hazardous waste. For example, greater than 1.0 percent of a friable or brittle ACMs are identified as a hazardous waste whereas leaching a demolition sample containing lead at or above a concentration of 5 parts per million is also a hazardous waste. Additionally, computer monitors, batteries, ballast, as well as halide and fluorescent lighting are considered hazardous waste without testing, but are classified as universal waste and must be managed accordingly. Therefore, it is important to contact the ESH department to assess, sample as well as request ACMs containers and labels prior to removal of building and office hazardous waste.

*Hot Work

Any time a contractor proposes to use a tool to generate a spark or flame on our property, whether indoors or outdoors, Northrop Grumman must issue a hot work permit. Torches and other hot work equipment must be inspected as well and ensure your fire extinguisher is not tampered with



**Denotes a permit is required to be completed and accepted by ESH prior to work.*

INSIDE

Trim and fold as indicated on reverse side (contractor_A.pdf).