

Instructions: (Please read)

1. In accordance with General Safety and Environmental Rules for Contractors (Systems Form 7847), the contractor is required to complete a Job Hazard Analysis (JHA) for any construction or maintenance task at NGSSS Space Park. Attached is a NGSSS template in which all sections and Appendix A are to be completed by the contractor. Contractors can complete their own JHA template providing it contains similar content and an acknowledgement page. Failure of contractor to complete a JHA or sign the JHA prior to project work will result in project delay.
2. Section 4 requires the risk to be assessed for each step in the project utilizing the following table. Indicate the risk number in the last column of Section 4 of the table and highlight the number the same color as shown below.

0-5 Low risk 6-10 Moderate risk 11-15 High risk 16-25 Unacceptable	Minor injury, insignificant property or equipment damage	Non-reportable injury, minor loss of process or slight property damage	Reportable injury, moderate loss of process, limited property damage	Major injury, single fatality, critical process loss, critical property damage	Multiple fatalities, catastrophic business loss
	1	2	3	4	5
5 Near certain	5	10	15	20	25
4 Probable	4	8	12	16	20
3 Possible	3	6	9	12	15
2 Unlikely	2	4	6	8	10
1 Remote	1	2	3	4	5

3. Ensure any applicable ESH program, training and air monitoring calibration records are submitted to ESHM for review prior to work as requested in the ESH Notification List posted in OASIS: [Notification List](#).
4. The JHA can be referred to on a similar construction and maintenance project by the same contract company at a different Space Park project location, but it is the responsibility of the contract supervisor or designee is to ensure no new hazards as well as each contract worker has reviewed and signed the JHA at each project location.
5. The JHA shall be readily available on the project site.



JOB HAZARD ANALYSIS

(NGSSS Space Park)

Contractor Document Control ID:

Revision Date:

Revision #:

Contract Company:

SECTION 1: JOB/TASK/PROCESS (Document general information and review. NGAS ESH must review and accept prior to work.)

FACILITY/CLIENT LOCATION: NGAS-Space Park	BUILDING LOCATION:	PROJECT DATE:	PO (If available):
SCOPE OF WORK (PLEASE PROVIDE ENOUGH DETAIL TO ASSESS THE HAZARDS):			DURATION OF PROJECT/TASK (DAYS):
PREPARED BY (Contractor to Print Name):	TITLE:	ORIGINAL DATE:	REVISION DATE (if applicable):
REVIEWED BY (Supervisor to Print Name):	DATE:		

SECTION 2: Chemical/Physical/Biological Hazards (List any job hazard agents.)

Chemical Agents (Refer to Space Park Contractor Hazardous Material List for Status)	Physical Agents (e.g. Thermal, Noise, etc.)	Biological Agents (e.g. Mold, Hepatitis A, Black Widow Spiders, etc.)



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SECTION 3: PPE HAZARD ASSESSMENT SUMMARY (Check PPE to be worn at any time during the project. Refer to Section 4 when the PPE will be worn for a given task.)

Head	<input type="checkbox"/> Hard Hat <input type="checkbox"/> Class E Electrical Hard Hat <input type="checkbox"/> Bump Cap <input type="checkbox"/> Other: _____
Eyes/Face/Neck	<input type="checkbox"/> Safety Glasses with Side Shields <input type="checkbox"/> Goggles – Chemical <input type="checkbox"/> Goggles – Dust <input type="checkbox"/> Face Shield <input type="checkbox"/> Welding Helmet <input type="checkbox"/> Balaclava (Fire Retardant) <input type="checkbox"/> Other: _____
Respiratory	<input type="checkbox"/> Dust Mask <input type="checkbox"/> Half-Face Respirator/Cartridge Type: _____ <input type="checkbox"/> Full Face AP Respirator/Cartridge Type: _____ <input type="checkbox"/> PAPR/ Cartridge Type: _____ <input type="checkbox"/> SABA <input type="checkbox"/> SCBA <input type="checkbox"/> Other: _____
Ears/Hearing	<input type="checkbox"/> Ear Plug <input type="checkbox"/> Ear Muff <input type="checkbox"/> Double (Combination Ear Plugs & Ear Muffs) <input type="checkbox"/> Other: _____
Hands/Arms	<input type="checkbox"/> Cotton Gloves <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Puncture/Cut Resistant Kevlar <input type="checkbox"/> PVC <input type="checkbox"/> Nitrile <input type="checkbox"/> Anti-vibration <input type="checkbox"/> Thermal <input type="checkbox"/> Other: _____
Body	<input type="checkbox"/> General Work Uniform (long pants and short sleeve shirt) <input type="checkbox"/> Chemical Protective Clothing/Type: _____ <input type="checkbox"/> Fire Retardant Coveralls/Uniform/Type: _____ <input type="checkbox"/> Apron <input type="checkbox"/> Sleeves <input type="checkbox"/> Class 2 Safety Vest <input type="checkbox"/> Heat Reflective Suit <input type="checkbox"/> Foul Weather Gear <input type="checkbox"/> Cool Vest <input type="checkbox"/> Other: _____
Feet	<input type="checkbox"/> Safety-Toe Boots – Leather or Rubber <input type="checkbox"/> Shoe Metatarsals <input type="checkbox"/> Booties/ Type: _____ <input type="checkbox"/> Other: _____



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SECTION 5: Atmospheric Monitoring Required: Yes No

[For assistance in determining exposure action levels please refer to your respiratory protection program.]

List Hazardous Substance(s), mixtures or Material(s) of Concern Below:	Monitoring Instrument	Substance / Material Exposure Action Levels (Indicate units)			
		Level A-hazmat with supplied air respirator & total encapsulating suit	Level B-hazmat with supplied air respirator	Level C-air purifying respirator	Level D-general work attire

SECTION 6: Training *(Document the required job task training. Otherwise indicate not applicable-N/A.)*

SECTION 7: Emergency Procedures *(Document the emergency Response Procedures - i.e. First Aid/CPR, emergency call #'s, etc.)*

Call Security at 310.812.9911 using cell or x29911 using the on-site phone.

Contact NGAS Representative: and cell:

Apply First Aid or CPR to the injured. If greater than 5 contractors on site, ensure one person on site trained in FA/CPR/AED.















If not trained, ensure injured contractor is taken to Building S, RM 1371 Health Clinic, Monday through Friday 7:00 AM to 4:30 PM.















During non-working hours, working during a NGAS off-Friday or contract company requirements, provide a clinic route map in Appendix B.

SECTION 8: Decontamination Procedures *(If applicable, document the decontamination procedures -i.e. people and equipment)*

Appendix A: Table of Hazards and Controls (Used as a tool to trigger awareness to potential job hazards.)

This Table presents a list of potential hazards and possible controls to assist contractors to manage hazards during the proposed work. The table does not include all possible hazards and only acts as a guideline. Its intent is to aid in the JHA thought process to determine the job hazards that may be present and identify controls to be implemented for consideration in Section 4.

<input type="checkbox"/>  Pressurized Equipment	<input type="checkbox"/>  Poor Lighting or Visibility	<input type="checkbox"/>  Personnel	<input type="checkbox"/>  Confined Space	<input type="checkbox"/>  Simultaneous Operations	<input type="checkbox"/>  Environment	<input type="checkbox"/>  Ignition Sources
<ul style="list-style-type: none"> <input type="checkbox"/> Perform isolation – LO/TO, blind or block <input type="checkbox"/> Depressurize, drain, purge, and vent <input type="checkbox"/> Avoid auto-refrigeration when depressurizing <input type="checkbox"/> Verify pressure is relieved <input type="checkbox"/> Anticipate residual pressure or fluids <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Provide portable lighting with at least 10 foot candles in the work area <input type="checkbox"/> Ensure lighting has appropriate guards and plugged to a GFCI to a temporary receptacle or in wet locations <input type="checkbox"/> Wait or defer until visibility improves <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Review JHA with new workers <input type="checkbox"/> Mentor, coach, or supervise <input type="checkbox"/> Verify competencies, skills, and experience through certification or by employer <input type="checkbox"/> Address any applicable personal limitations (e.g. restricted duty) <input type="checkbox"/> Manage different languages <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Discuss confined space entry safe work practices prior to entry <input type="checkbox"/> Personnel trained <input type="checkbox"/> Completed permit and NGAS Authorization Tag posted <input type="checkbox"/> Conduct continuous air monitoring and periodically record data <input type="checkbox"/> Locate fuel-powered engines upwind and outside of the confined space <input type="checkbox"/> Vertical openings protected from falls <input type="checkbox"/> Provide attendant at all times at entry <input type="checkbox"/> Verify rescue plan <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Use protective barriers and signs to segregate construction and user activities/traffic/parking restrictions <input type="checkbox"/> Work accepted by NGAS from affecting NGAS personnel <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Implement controls for slippery surfaces <input type="checkbox"/> High winds – defer work <input type="checkbox"/> Heat – hydration, breaks <input type="checkbox"/> Cold – PPE, heaters <input type="checkbox"/> Lightning – defer work <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> NGAS hot work permit in place <input type="checkbox"/> Remove, isolate 35 feet, or contain combustible materials <input type="checkbox"/> Provide 20 pound fire extinguisher or equivalent <input type="checkbox"/> Provide a fire watch during and at least 60 minutes after hot work <input type="checkbox"/> Post No-Smoking signs and smoke in designated area <input type="checkbox"/> Conduct continuous testing in flammable use areas <input type="checkbox"/> Bond and earth for static electricity dissipation <input type="checkbox"/> Intrinsically safe equipment <input type="checkbox"/> _____
<input type="checkbox"/>  Hazardous Substance	<input type="checkbox"/>  Potential Spills	<input type="checkbox"/>  Hot or Cold Equipment	<input type="checkbox"/>  High Noise	<input type="checkbox"/>  Dropped Objects	<input type="checkbox"/>  Rigging Equipment	<input type="checkbox"/>  Work at Heights
<ul style="list-style-type: none"> <input type="checkbox"/> Personnel are familiar with the chemical hazards <input type="checkbox"/> Work plan submitted to NGAS and third party monitor assigned for asbestos, lead and mold projects <input type="checkbox"/> Implement the blood borne exposure control plan <input type="checkbox"/> Implement dust control <input type="checkbox"/> Implement ventilation control <input type="checkbox"/> Exposure air monitoring <input type="checkbox"/> MSDS readily available on site <input type="checkbox"/> Personnel are familiar with and will implement controls (ventilation, PPE) <input type="checkbox"/> Hazardous waste coordinated with NGAS ESH <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Drain equipment <input type="checkbox"/> Spill containment equipment readily available <input type="checkbox"/> Cover and secure waste containers, label and store at an approved location within secondary containment <input type="checkbox"/> Restrain and isolate hoses when not in use <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Heat or cool equipment before work starts <input type="checkbox"/> Install barriers <input type="checkbox"/> Verify warning signs <input type="checkbox"/> Wear thermal gloves <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Wear correct type of hearing protection <input type="checkbox"/> Conduct noisy operations during NGAS off-hours <input type="checkbox"/> Use tools with sound dampening controls <input type="checkbox"/> Install curtains <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Use signs and barriers to restrict entry or access under work at elevation <input type="checkbox"/> Use mechanical lifting equipment to raise tools to or from the work platform or use manually lift tools in a bucket <input type="checkbox"/> Secure tools (tie-off) <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Inspect and document rigging equipment condition and certification <input type="checkbox"/> Use a tag line <input type="checkbox"/> Obtain approval for lifts over process equipment <input type="checkbox"/> _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Address controls for working at heights and fall protection safe work practices <input type="checkbox"/> Inspect portable ladders as well as ensure footing is stable and is secure prior to daily use <input type="checkbox"/> Scaffold inspected prior to daily use <input type="checkbox"/> Verify fall restraint or arrest equipment inspected by a competent person biannually <input type="checkbox"/> _____

<input type="checkbox"/>  Portable Electrical Tools/Equipment <input type="checkbox"/> Inspect equipment guarding & cord condition <input type="checkbox"/> Guards in place <input type="checkbox"/> Protect electrical leads from impact or damage <input type="checkbox"/> Use GFCI's outdoors or in wet locations <input type="checkbox"/> Face shield and safety glasses worn when grinding or bead blasting <input type="checkbox"/> Utilize grinders with dust collectors indoors <input type="checkbox"/> Caution sign posted within 50 feet of use of a Powder Actuated Tool and employee has a valid operator's card. <input type="checkbox"/> Powder actuated tool kept within a lockable container when not in use <input type="checkbox"/> _____	<input type="checkbox"/>  Manual Hand Tools <input type="checkbox"/> Inspect equipment and tools <input type="checkbox"/> Do not use modified tools <input type="checkbox"/> Attach protective guards <input type="checkbox"/> Use correct tools and equipment for the task <input type="checkbox"/> Use a self-retracting knife <input type="checkbox"/> Wear Kevlar gloves with handling sharp objects <input type="checkbox"/> Protect sharp edges when tools are not in use <input type="checkbox"/> _____	<input type="checkbox"/>  Moving Objects or Equipment <input type="checkbox"/> Confirm machinery guard integrity <input type="checkbox"/> Provide protective barriers <input type="checkbox"/> Observer to monitor proximity of people and equipment <input type="checkbox"/> Shut down and LO/TO equipment <input type="checkbox"/> _____	<input type="checkbox"/>  Manual Handling <input type="checkbox"/> Assess the manual handling task and path <input type="checkbox"/> Limit load size to 50 pounds <input type="checkbox"/> Use safe-lift technique-back straight, legs staggered <input type="checkbox"/> Confirm stability of load <input type="checkbox"/> Use a mechanical aids <input type="checkbox"/> Use gloves designed for gripping <input type="checkbox"/> _____	<input type="checkbox"/>  Mobile Equipment <input type="checkbox"/> Inspect and document equipment condition <input type="checkbox"/> Wear harness and lanyards in boom lifts and in scissor lift if manufactured attachment <input type="checkbox"/> Limit and monitor proximity to live equipment or cables <input type="checkbox"/> Adequate distance from overhead hazards <input type="checkbox"/> Adhere to road and site rules <input type="checkbox"/> Use barricades direct vehicular and pedestrian traffic <input type="checkbox"/> 3-point contact when entering/exiting equipment <input type="checkbox"/> Crane lift plan completed accepted by NGAS ESH <input type="checkbox"/> Fuel consuming equipment exhausted/ducted to the outdoors <input type="checkbox"/> _____	<input type="checkbox"/>  Vibrating Equipment <input type="checkbox"/> Manage exposure times <input type="checkbox"/> Assess affect of vibration on equipment <input type="checkbox"/> Use low vibration equipment <input type="checkbox"/> Wear anti-vibration gloves <input type="checkbox"/> Implement noise controls <input type="checkbox"/> _____	<input type="checkbox"/>  Slips, Trips, and Falls <input type="checkbox"/> Identify and shield uneven surface or projections <input type="checkbox"/> Protect or elevate cables, cords, and tubing <input type="checkbox"/> Wear shoes with adequate traction with heel when climbing a ladder <input type="checkbox"/> Barricade or clean up spills immediately <input type="checkbox"/> Barricade openings, uneven surfaces and holes <input type="checkbox"/> _____
<input type="checkbox"/>  Electrical Energy <input type="checkbox"/> Restrict access to authorized personnel only <input type="checkbox"/> De-energize equipment <input type="checkbox"/> Observe safe work distances for live cables <input type="checkbox"/> Work permit completed for energized work <input type="checkbox"/> Use insulated gloves, tools, and mats <input type="checkbox"/> _____	<input type="checkbox"/>  Excavations <input type="checkbox"/> Develop an excavation plan <input type="checkbox"/> Facilities to complete Excavation Permit and accepted by ESHM <input type="checkbox"/> NGAS Excavation protocol is available on site <input type="checkbox"/> Contact Dig Alert <input type="checkbox"/> Conduct 3 rd party subsurface survey <input type="checkbox"/> Review underground blue prints & verify with facilities <input type="checkbox"/> Locate underground pipes or cables by hand digging <input type="checkbox"/> Competent person on site at all times and inspect excavation daily prior to entrance <input type="checkbox"/> Excavation shored or sloped according to soil type <input type="checkbox"/> De-energize underground services <input type="checkbox"/> Implement confined space entry controls <input type="checkbox"/> Barricade/Flag and post signs regarding open excavations <input type="checkbox"/> _____	<input type="checkbox"/>  Waste Clean Up and Disposal <input type="checkbox"/> Personal trained in hazardous waste operations and emergency response (HAZWOPER) <input type="checkbox"/> Health and safety plan prepared for potential contact to contaminated media <input type="checkbox"/> Apply environmental management practices such as using absorbent socks at storm drains <input type="checkbox"/> Follow NGAS waste management procedures <input type="checkbox"/> Clean up equipment and materials at site <input type="checkbox"/> Optimize task to minimize waste production <input type="checkbox"/> _____	<input type="checkbox"/>  Other Energy Sources <input type="checkbox"/> Remove or block energy <input type="checkbox"/> Eliminate heat generating processes <input type="checkbox"/> Utility outage submitted and accepted by NGAS prior to conducting work affecting smoke alarms, sprinklers, electrical, natural gas, remediation equipment and water <input type="checkbox"/> _____	<input type="checkbox"/>  Emergency Response <input type="checkbox"/> Keep egress route open <input type="checkbox"/> Workers know the evacuation location and NGAS emergency phone numbers <input type="checkbox"/> Shower and eye wash stations present and are accessible for chemicals potentially are corrosive or cause irreversible skin or eye injuries <input type="checkbox"/> Contractors familiar with the rescue plan <input type="checkbox"/> Emergency assistance route map is attached in Appendix B <input type="checkbox"/> Keep emergency alarm, fire equipment, and shutdown locations unobstructed <input type="checkbox"/> First aid kit available and personnel trained in first aid/CPR <input type="checkbox"/> _____	<input type="checkbox"/>  Hazard Awareness and Compliance <input type="checkbox"/> Cal/OSHA Safety and Health Protection is posted on site <input type="checkbox"/> Tail-gate topics applicable to the project and are frequently presented to the workers <input type="checkbox"/> Implement our Injury Illness Prevention Program <input type="checkbox"/> Implement our Hazard Communication Program <input type="checkbox"/> _____	<input type="checkbox"/>  Other Hazards <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____

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APPENDIX B
CLINIC ROUTE MAP