



Niska
Gas Storage

Environment, Health & Safety Handbook

AMERICAN OPERATIONS



Revised April 2011

Contractor Safety

California Contacts	Numbers
Butte County Environmental Health Division (EHD)	1-530-691-2727
Butte County Air Quality Management District (AQM)	1-530-691-2727
CAL - OSHA - Chico	1-530-895-4761
California Fish and Game Department (CFGD)	1-530-868-5722
California Office of Emergency Services (COES)	1-800-852-7550
California Public Utilities Commission (CPUC)	1-800-235-1076 or 1-800-235-7128
Central Valley Regional Water Board	1-530-224-4788
Division of Oil, Gas and Geothermal Resources (DOGGR)	1-916-322-1110
Gridley Fire Department	911 or 1-530-846-5711
US Department of Transportation	1-800-424-8802
US National Response Center (NRC)	1-800-424-8802
Central Valley Regional Water Quality Control Board (WQB) – Redding Office	1-530 224-4788
Wild Goose Facility Contact	WG Control Room: (530) 846-7351 After Hours 24 hr Emergency Number: 1-866-940-7351

Oklahoma Contacts	Numbers
Salt Plains Facility Contact	SPS Control Room: (580) 694-2249 After Hours 24 hr Emergency Number 1-877-694-2249
Occupational Safety & Health Administration	1-800-321-6742 or 1-405-278-9560
Oklahoma Corporation Commission	1-405-375-5570
US Fish & Wildlife Service, Oklahoma	1-580-626-4794
US Department of Transportation	1-800-424-8802
US National Response Center (NRC)	1-800-424-8802

NISKA CONTACT NUMBERS

Person & Position	Location	Non-Emergency
Kelly Baltimore -EHSS Coordinator	Calgary	Ph: (403) 513-8663
		Cell: (403) 988-7041
Operations	Manchester, OK Salt Plains Storage	Ph: (580) 694-2249
		Cell: (580) 554-6124
Pat Baynard - Maintenance & Operations Coordinator	Gridley, CA Wild Goose Storage	Ph: (530) 846-7385
		Cell: (530) 363-0032
Gary Theberge - Manager E&O (SPS &WGS)	Calgary	Wk: (403) 513-8631
		Cell: (403) 580-8586

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1.0 ABOUT THIS HANDBOOK

This Environment, Health and Safety (EH&S) Handbook communicates Niska Gas Storage's minimum EH&S expectations of our contractors working Niska Gas Storage facilities in U.S.A. The Standards and guidelines presented herein are intended to compliment and support your company's existing EH&S management program.

All personnel working for Niska Gas Storage are required to understand, adhere to and comply with their company's EH&S standards and guidelines presented in this handbook. Additionally, the provisions of relevant federal or state Occupational Health Safety (OHS) Acts, Codes or Regulations must be complied with at all times. Should a conflict exist between this document and the applicable regulation, the regulations shall take precedence.

Niska has a strong commitment to the safety of its employees, contractors, and sub-contractors. No one is expected to work in an unsafe environment or perform an unsafe act. No one will be penalized for refusing to do so.

It is the responsibility of each individual working for Niska Gas Storage to take responsibility for their own safety and the safety of those working around them. You are required to immediately report to your supervisor any incident or situation that is, or has the potential to become, a threat to workplace safety and/or the environment.

2.0 EHS POLICY STATEMENT

Impact to the environment, protection against harm to the public or its workers, prevention of damage to company materials and property are core business values of Niska Gas Storage (Niska).

Every Niska employee has the right to a safe work place. Niska embraces a 100% safe culture and places the protection of people from injury or illness above all other management considerations and is dedicated to continuing our commitment of operating our facilities to the highest standard of environmental health and safety compliance.

Niska will conduct and treat people fairly and communicate promptly, completely and accurately with our customers, employees, suppliers, community members, shareholders, regulators and all others with whom we do business. Niska is obligated to our employees to provide the resources and training necessary to provide a safe work place and Niska employees have the obligation to adhere to safety regulations and safe work procedures.

Niska will ensure that:

- Safety and environmental compliance come first, regardless of the magnitude or urgency of the job.
- Personnel are available to provide the resources and guidance necessary for continuous improvement to safety procedures.
- Personal Protective Equipment is available and used when required.

- Safe work procedures are developed, reviewed by all affected workers prior to the commencement of work and adhered to.
- Our employees are provided with the tools and training necessary to allow them to conduct their work in a safe and productive manner.
- Workers on Niska work sites adhere to government laws and regulations.
- Our facilities are operated in an economical, environmentally sustainable and socially responsible manner and to reduce waste, emissions and discharges from our operations.

Niska Gas Storages safety program also contributes to worker morale and quality of work as a result of our employees participating in identifying work place hazards and the development of safe work practices and procedures.

Niska Gas Storage is committed to ensuring that all relevant legislation is incorporated into the Niska Gas Storage safety program and that all workers comply with those requirements.

The success of the Niska Environmental Health & Safety program depends on the adherence and cooperation of all Niska Gas Storage employees and contractors. We must all strive to protect the environment and the health and safety of ourselves, fellow workers and the general public.

No job is so important that we cannot take the time to do it safely.

3.0 RESPONSIBILITIES

3.1 Niska Gas Storage

Niska has the responsibility to:

- Ensure the health and safety of all workers at the work site
- Inform contractors of any known or potential hazards
- Provide orientation on EH&S issues specific to Niska work sites.
- Designate a prime contractor where required. Niska Gas Storage is the prime contractor at their work sites unless a legally binding contract has been signed between Niska and the contractor identifying the contractor as 'Prime Contractor'.

3.2 Contractors, Subcontractors and Consultants

Contractors, Subcontractors and Consultants have the responsibility to:

- Having an effective environmental, health and safety program in place.
- Maintain insurance as required by Niska contract or Master Service and Supply Agreement (MSSA) specifications.
- Insisting on safe performance throughout their operations by ensuring their workers are competent to perform their work correctly.
- Ensuring their employees and subcontractors meet the contractor's and Niska's environmental, health and safety expectations.
- Ensuring their safety programs and operations comply with Niska's contractual and OH&S regulatory requirements.
- Providing the required time and resources to allow subcontractors and their employees to perform their work correctly and safely.
- Ensuring that workers under their supervision know and

are prepared to deal with the hazards associated with their work and any specific hazards on the work site.

- Ensuring that PPE is available, properly used, stored, maintained, and replaced when necessary.
- Reporting all accidents and/or incidents to Niska as soon as possible.
- Provide written safe work procedures for all high risk jobs.
- Complying with their responsibilities as stated in the OH&S Act, Regulations and/or Code by ensuring:
 - i. Unsafe conditions and behavior are corrected immediately.
 - ii. Daily Tailgate meetings, Pre-job Hazard Assessments and Job-specific Hazard Assessments are conducted, and documented safe work practices or procedures are developed by the contractor and are being adhered to.
 - iii. The correct equipment or tools to conduct the task are available and maintained.
 - iv. Hazards are identified and removed where practicable.

Niska expects that the contractor personnel will have all training required to perform their job legally and safely. It is the responsibility of the contractor to ensure their personnel have all necessary safety training required prior to the commencement of the job.

3.3 Workers

All workers are responsible for:

- Being aware of their environmental, health and safety responsibilities.
- Taking reasonable care to protect themselves, their co-workers, the public, the environment and company property.
- Knowing the emergency response plan, where emergency equipment, alarms and emergency response numbers are

located, and how and where to evacuate when working at facilities or work sites.

- Participating in all required training, including health and safety training.
- Correctly using all required protective and safety equipment.
- Following safety standards and safe work procedures as set out by Niska or their employer.
- Consulting their immediate supervisor if there is any doubt regarding the job procedure or the safety requirements before proceeding with an assigned task.
- Refusing to conduct work for which they are not trained or when unsafe conditions exist.
- Immediately reporting injuries, near misses, or other incidents to their supervisor.
- Conducting inspections of safety equipment, tools and equipment, and PPE prior to using them.
- Knowing the type, location and operation of emergency equipment: and
- Reporting directly to the Lead or Chief Inspector or Niska Representative in charge of the site where project work is taking place in order to be advised of any site-specific hazards that may affect their health or safety.

3.4 Visitors

All Visitors to a Niska work site are responsible for:

- a) Following the instructions of the Niska representative;
- b) Wearing the specified PPE where required;
- c) Staying in close proximity to the Niska representative; and
- d) Reporting directly to the Niska representative in charge of the site where construction or project work is taking place in order to be advised of any site-specific hazards that may affect their health or safety.

3.5 Right to Refuse Unsafe Work

The right to refuse unsafe work is essential to occupational health and safety legislation in all jurisdictions. Niska supports the contractor's right to refuse any unsafe work. Niska expects that contractors will understand their obligations in this critical area. Stop any work that is considered an unreasonable risk. Any safety hazards reported must be investigated and Niska will attempt to resolve worker concerns to protect the safety of site personnel and the public.

3.6 Environmental Legislation

Contractors must be aware of, and comply with, any and all federal, state and/or municipal environmental legislation and regulations pertaining to activities they conduct on behalf of Niska.

3.7 Workers Compensation

3.7.1 Insurance Coverage

Contractors must maintain Workers Compensation Board (WCB) coverage in good standing for their personnel. Contractors must ensure that their employees are aware of their right to compensation from the WCB in the event of a workplace injury or illness.

3.7.2 Reporting of Work-related Injuries or Illnesses

The Workers' Compensation Act requires contractors to report work related injuries or illnesses to the Workers' Compensation Board (WCB) for incidents involving their workers. Additionally, Niska requires immediate notification of all incidents.

3.8 Master Service and Supply Agreement

- a) Prior to undertaking any work on a Niska work site, all contractors must have an approved and current

Master Service and Supply Agreement (MSSA) or other management-approved agreement in place.

- b) Prior to authorizing any work on a Niska work site, each Niska project coordinator is responsible for ensuring that every contracted employer contracted by them has a signed MSSA or similar service/construction agreement in place and on file.
- c) Prior to commencing work, contractors must be fully covered by the applicable Workers' Compensation Board. Insurance for public liability and property damage must also be provided. Copies of insurance certificates, including any renewals must be sent to the Niska procurement coordinator. If further details are required, consult with your Niska representative.

3.9 Service Provider Notification Guideline

- a) Service providers shall give, as a minimum, 24 hours notice to the Niska representative as to their intended arrival to the work site.
- b) Service providers working on a system that could effect production must call into the Niska Control Center when arriving and/or leaving the work site.
- c) Contractors must obtain a Safe Work Permit from a Niska representative prior to the commencement of any work.

4.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- a) Niska will provide all required PPE to their employees. However, PPE for non-Niska employees will not be supplied by Niska unless approved by the Niska Site Supervisor.
- b) PPE shall be used wherever indicated by Niska. Any worker who does not comply with Niska's PPE requirements will be removed from the Niska work site.

- c) All workers must:
- Use their PPE in accordance with the training and instruction received;
 - Inspect their PPE prior to use; and
 - Not perform the task or use the PPE if the equipment's condition makes it unable to perform the function for which it was designed.
- d) Basic PPE that must be utilized by Niska employees at all Niska work sites includes:
- ANSI approved hardhats;
 - ANSI approved Grade 1 safety boots;
 - ANSI approved eye protection (safety glasses or goggles as appropriate) prescription safety glasses must have side shields;
 - ANSI approved hearing protection (plugs or muffs) is required if there is a risk of exposure to noise equal to or greater than 85 dBA; and
 - Flame resistant outer wear, whenever there is the potential for flash fires (i.e. whenever you are working in proximity to hydrocarbons).

4.1 Respiratory Protection

Niska recognizes that some of the substances which contractors may be exposed to at work may have long term health effects. These substances include but are not limited to: benzene, n-hexane, toluene, ethyl benzene, xylene, methanol, polycyclic aromatic hydrocarbons (PAH), formaldehyde, and glycol. Respiratory protective equipment may be required when handling certain controlled products. Respiratory protective equipment will not be supplied Niska to contractors.

Contractors must consult the relevant msds for the product they are using to identify the correct PPE and safe work procedures for the storage, handling and disposal of hazardous substances to avoid any long term health effects.

Keep exposures to hazardous chemicals below regulated exposure limits and be aware of their occupational health hazards. For the purpose of this document, hazardous substances are those substances for which there is an established occupational exposure limits (OEL).

All contractors who are required to use respiratory protection must be trained in its use, care, and limitations. Contractors are responsible for ensuring that their workers have been fit tested as required by the manufacturer. Where respiratory protective equipment may be required to be worn, personnel must be clean shaven, which means within the past 24 hours. Vandyke's, goatees or Manchurians are not acceptable as they may impede the fit of the respirator. Exemptions to the clean-shaven requirement will only be granted under the Niska visitor's guideline.

5.0 SAFE WORK PRACTICES

5.1 Equipment Isolation

All harmful substances must be removed before any repair or modification work is conducted on equipment, pipes, or pipelines. Contractors must use and follow task specific work procedures, developed in conjunction with Niska Gas Storage personnel, when isolating equipment.

General

- Only those workers who have been trained and authorized by Niska are authorized to conduct electrical system lockouts.
- Every affected worker on a Niska work site is required to lock out equipment or machinery and must work under the protection of their own personal safety lock that is not keyed alike to any other worker's safety lock on site, and must keep the key to that lock in their possession.

- Under normal conditions, the facility operator will de-energize and apply the ‘first lock’ if equipment is to be serviced, repaired, tested or adjusted.

5.1.1 Purging

Written procedures must be available that instruct workers on the purging method and medium to be used. Contractors must contact Niska Gas Storage personnel prior to depressurizing any equipment or lines at the facility.

5.1.2 Blinding, Blanking, Double Block & Bleeding

Depending on the situation and application, isolation may be accomplished through blinding, blanking, double block and bleeding or a combination of these techniques. Written work procedures must be available that instruct workers on the proper isolation method to be used.

5.2 Ground Disturbance

An excavation is any dug out area of ground except a trench, tunnel or mine exceeding one (1) foot in depth. A trench is an elongated dug out area of ground where the depth exceeds the width at the bottom. Plan for access and egress, wall cut backs, shoring, safe spoil pile location, and other safety issues before you start to dig.

General

- Niska requires that any ground disturbance or excavation deeper than 1 foot be conducted under the supervision of a qualified Niska representative who has successfully completed training on Niska’s Ground Disturbance Standard.
- All excavations on Niska work sites shall comply with the Niska Ground Disturbance Practice.
- All underground facilities must be marked before any ground disturbance is undertaken.
- Spoil piles must be at least 3 feet from the side of the excavation and have a slope of 45° or less.

- Power line poles, adjacent to excavations, must be protected from cave-ins.
- Mechanical excavation must not take place within 2 feet of a buried facility, (including underground power lines, water lines, sewer lines etc.) unless the use of the equipment is under the direct supervision of a representative of the owner of the buried pipeline.
- Only the facility owner representative can direct or permit heavy equipment to operate within 2 feet of an exposed facility.
- All buried facilities situated within the excavation and within 5.5 yards of the work area must be hand exposed prior to mechanical excavation.

Niska requires that any ground disturbance or excavation deeper than 1 foot be conducted under the supervision of a Niska supervisor who has successfully completed Niska's Ground Disturbance Training Program.

5.3 Firearms

Firearms of any description are strictly prohibited on any Niska Gas Storage facility or in any contractor vehicle.

5.4 Fire Prevention and Fire Extinguishers

5.4.1 Fire Prevention

- No work shall take place on a Niska work site where the atmosphere exceeds 20% of the Lower Explosive Limit (LEL).
- When loading and unloading product or chemicals, ensure all trucks (contracted or other) are bonded.

5.4.2 Fire Extinguishers

- Contractors shall supply and maintain their own fire extinguishers and ensure that all workers under their direction are proficient in the proper use, maintenance, and inspection of fire extinguishers.

- All vehicles must be equipped as a minimum, a 20 lb dry chemical ABC fire extinguisher with the appropriate DOT and HMIS labels;

5.5 Overhead Work

- All workers working 12 feet or higher above ground level are required to be protected using approved scaffolds, ladders, and/or fall arrest devices.
- Fall protection and fall arrest equipment must be certified for its intended use.

5.6 Safe Work Procedures

- Safe work procedures are step by step instructions that outline how to complete a task the safest way, the hazards associated with that task and the corrective measures.
- Safe work procedures also identify the correct materials, tools and equipment to be used to complete a task and specify the appropriate PPE to be worn.
- Safe work procedures usually contain emergency procedures and are required for all non-routine jobs.
- Niska expects contractors to have and follow safe work procedures for all high-risk tasks they perform.

5.7 Scaffolding

Where scaffolding is required, only competent, certified persons will be authorized to erect scaffolding on a Niska worksite.

- Scaffolding shall be tagged to communicate its fitness for service as follows:
- Green – No Restrictions
- Yellow – Caution
- Red – Do Not Use

5.8 Smoking

- All Niska work sites are designated smoke-free.
- Niska management shall approve designated smoking areas.
- Designated smoking areas will not be permitted within 75 feet of wellheads, drilling or service rigs, process or storage facilities or other hazardous areas.
- Signs will be posted so that smoking and non-smoking areas are clearly identified
- Additional breaks to allow smoking outside of an employee's normal work breaks will not be permitted.
- The use of smokeless tobacco is prohibited at all times in all offices, meeting room areas and lunchrooms.
- Only safety matches (ignited on a box or folder) or lighters with enclosed or covered mechanisms are permitted on field location work sites. Strike-anywhere matches or open-mechanism disposable lighters are prohibited

5.9 Intoxicating Beverages and Medications

- Possession of, or being under the influence of, illegal drugs or alcoholic beverages is strictly prohibited on Niska work sites and shall be cause for removal from the work site.
- Workers shall ensure that legitimate use of over-the-counter medications or prescription drugs does not impair their ability to perform their job safely.

5.10 Temporary Signage & Barricades

Contractors are responsible to ensure that adequate and appropriate warning signs and barricades are used at their work site to clearly identify hazards.

5.11 Welding and Cutting

- A fire safety watch must be in place for all hot work welding

and cutting activities.

- Hazards of welding include the following:
- Ultraviolet radiation
- Fire explosion
- Exposure to toxic gases/fumes/dusts
- Appropriate PPE as outlined in this booklet must be worn when conducting welding and cutting activities.

5.12 Work Permit Systems

Work Permits are required at Niska facilities for all non-routine tasks to ensure hazards are identified and effective control measures are understood and implemented.

Your Niska representative will issue any required permits and will review the permit conditions with you prior to work commencement.

All SWP's are immediately considered cancelled should an emergency, unexpected gas detector alarm, incident, reportable spill, reportable incident or site alarm occur.

The following permits may be required while working at Niska Gas Storage:

- Safe Work Permits – communicate potential hazards and identify required safety measures for a specified job, task or process.
- Hot Work Permit – required for work involving open flames, sparks or other sources of ignition that could create a fire or explosion hazard in a hydrocarbon atmosphere.
- Confined Space Entry Permit – required for work involving entry into spaces with restricted access or egress, such as fuel tanks, pipelines, pumping stations, process vessels, septic tanks, sewage digesters, manholes, vats, and pits.
- Ground Disturbance – required for work involving excavation
- Site Release – in some situations Niska will control safety at a specific site through the use of a site release. The site

release communicates potential hazards at the site to a designated Niska representative/supervisor who will then control all activity at the released site while the site release is in effect. The designated individual is responsible for issuing safe work permits and for ensuring the safe coordinated execution of work at the site.

Niska expects that contractors will follow the requirements of Niska's work permit system. The receiver of the permit must communicate the information on the permit to all workers involved with the job via a tailgate or pre-job safety meetings. Whether a permit is issued or not, it does not release the contractor from following safe work procedures.

5.13 Working Alone

If contractor personnel are required to work alone on behalf of Niska, contractors must:

- Conduct a hazard assessment to determine the hazards associated with working alone
- Implement safety measure to reduce the risk to their employees from the hazards they identify
- Ensure that their employees have an effective way of communicating with supervisor or other designated person in the case of an emergency situation.

Working alone is defined as working alone at a work site in circumstances where assistance is not readily available in the event of an injury, illness or emergency.

Niska expects that contractors will develop a system to monitor the location and well being of their personnel and to check on their will being while they are working in isolation.

6.0 FACILITY HAZARDS AND CONTROLS

6.1 Compressed Air

Compressed air should never be used for cleansing workers or their clothing. Air hoses must be properly secured to prevent accidental disconnection.

6.2 Compressed Gas Cylinders

- Storage areas must be located away from general traffic paths and not adjacent to vehicle paths
- Cylinders must have valve protection caps in place whenever they are not connected.
- When transporting, cylinders must be secured
- Flammable (i.e. acetylene and propane) gas cylinders must never be used or stored in a horizontal position.

6.3 Diesel Engines

- All diesel engine powered equipment which is routinely used within 75 feet or 25 yards of a well head or gas process equipment must be equipped with a positive air shutoff; or
- Engines not equipped with an automatic positive-air shut-off system must be equipped with a manual positive-air shut-off system and the operator of the unit must be stationed in such a way that they can immediately activate the emergency shutdown device, i.e. in the cab; or
- The unit must be shut off if the vehicle or piece of equipment is to be left unattended

6.4 Electronic Devices

- Personal communication devices including cellular phones, pagers, and radios are not normally intrinsically safe and may only be used within 75 feet or 25 yards of production

facilities or other sources of hydrocarbons if they are intrinsically safe.

- These devices should not be on work sites where flammable atmospheres could exist unless a worker is equipped with a 3-head electronic gas detector capable of detecting O₂, LEL, and CO and the atmosphere has been determined to be safe.
- Non-intrinsically safe electrical devices must remain in your vehicle.

6.5 Housekeeping

- Equipment, tools, and materials left lying around present tripping hazards
- Debris and oily rags are fire hazards
- Material that is improperly stacked could topple over and injure someone
- Snow and ice present slipping hazards

6.6 Ladders

- Extension ladders must be tied off at the top with tag lines or held by another worker, and extended at least 3 feet or 1 yard beyond the top bearing point. The upper and lower sections of extension ladders should overlap by at least three rungs.
- Ladders must be non-conductive if used for electrical work.
- The base of the ladder must be set at least one quarter of its vertical length from the base of the wall or structure.
- Do not use ladders when working above 20 feet.
- Before climbing a ladder, clean your boots if they are muddy or slippery. Avoid climbing with wet soles.
- Fall protection is not required if working off a ladder and the following points are met:

- The work must be a “light duty task”, such as inspection or painting
- The work done at each spot where the ladder is set up must be less than approximately 15 minutes in length;
- While doing the task, the worker must keep their centre of gravity (indicated by the belly button) between the side rails of the ladder; and
- The worker must maintain three points of contact whenever the worker extends an arm beyond a side rail.

6.7 Manual Lifting

- Niska recommends mechanical lifting of materials that exceed a worker’s physical capability of manual lifting.
- Plan manual lifts before attempting.
- The best way to carry a heavy object is to grasp it with hands underneath, waist high and up against the body.
- When completing a lift follow the in-lift process, the reverse of the lifting process.

6.8 Overhead Power Lines

Minimum approach distances to overhead power lines for personnel and equipment vary depending on voltage. As a rule of thumb, stay 75 feet or 25 yards away from overhead power lines unless the voltage and risks are known.

An overhead power line does not have to be hit to cause electric contact. Electricity can arc through the air between two conductors. If an energized power line is inadvertently struck, occupants in a vehicle must remain in the vehicle and never step from the cab to the ground. By contacting the ground in an electrified vehicle, the circuit is complete and electrocution can result. Wait for the power line to be de-energized before leaving the vehicle.

6.9 Pipe Handling

- Standing or walking on pipe should be avoided; a wooden platform or planking must be used.
- Tiers of pipe must be properly blocked and secured to control the hazard of rolling pipes
- Do not use hands and feet to position pipe as this presents a crushing injury risk
- Never walk or work under suspended pipe unless the load is fully secured or supported by blocking. All loads must be controlled by tag lines.

6.10 Portable Heaters

- Only competent workers may install, ignite and service portable heaters
- Heater use and maintenance must strictly follow manufacturer's specifications.
- When using portable heaters, ensure adequate ventilation to avoid buildup of exhaust gases.

6.11 Rotating Equipment

- Equipment such as flywheels, drive shafts and pumps present an entanglement hazard.
- Ill fitting clothing, loose fitting gloves, jewelry and long hair are susceptible to being caught in rotating equipment.
- Most rotating equipment is equipped with machine guards; workers must ensure that guards are in place before operating or working around rotating equipment.
- When working with rotating equipment that cannot be fitted with machine guards, safety procedures must be in place that identify hazards and control the associated risk.

6.12 Tools

- Select the proper tool for the task
- Inspect tools and equipment before use; if tools are damaged or appear to be defective, do not use. Tag equipment as out-of-service and report the deficiency to your supervisor.
- Use tools for their intended purpose only and be aware of any specific safe work procedures relating to the tool use.
- Never use tools or equipment that you are not qualified or properly trained to operate. Be aware that some tools and equipment require the completion of a certification course prior to their use.

6.13 Valves

- Opening stubborn or stuck valves can cause strains and sprains through overexertion. If the valve suddenly gives, excessive force can cause a fall.
- Always push a ball valve handle whenever opening the valve, never pull the handle toward you. The pressure differential across the surface of the ball valve could cause the valve and attached handle to swing open with great force and has the potential to severely injure a worker.
- Opening a valve can change the pressure in the pipe and the release of energy can produce enough force to cause valve or gasket failure.
- Valves should only be operated by competent workers.

6.14 Vehicles

- Contractor personnel must possess a valid operator's license along with any other certifications required for the vehicles that they operate.
- Contractors must obey state traffic laws and drive with due care and attention at all times.

6.14.1 Driving Speeds

Unless otherwise posted Niska Gas Storage speed limits are:

- Plant site and well pad – 10 mph
- Pipeline right-of-way – 15 mph
- Well pad access roads – 30 mph or as otherwise posted

6.15 Winching/ Towing

- Under no circumstances will ropes or straps equipped with metal eyelet hook and chain tail ends or any other type of clevis be permitted when conducting a winching or towing exercise.
- Never position yourself between the winching vehicle and the load being winched
- Always wear leather gloves when handling cable to avoid strands of wire protruding from the cable
- When handling cable use a hand over hand action, the winch line should not be allowed to slip through your hands.
- If towing a vehicle be aware of muddy conditions – tire chains may be required.
- Winch line slack must be taken up until the line is taut, then steady power should be applied to control both vehicles.

7.0 DRILLING & COMPLETION RIG HAZARDS AND CONTROL

Active drilling and completions activities may be present at anytime on gas storage well site at Niska facilities. Drilling and completion activities present unique hazards that must be understood and mitigated by contractors to ensure safe work performance while working at the facility. These unique hazards include, but are not limited to:

- Heavy equipment traffic

- High pressure liquid and gas lines
- Rotating Equipment
- Steam lines and de-icing equipment
- Overhead hazards
- Boilers
- Draw works
- Mud and fluid handling systems
- Pipe and casing handling

It is essential that any work being conducted concurrent with, or adjacent to, active drilling and completions operations be coordinated with the drilling and completions supervisors. Your Niska representative will coordinate the communication between storage operations and drilling and completions operations.

Hazards and control measures resulting from concurrent or adjacent construction/drilling/completions will be communicated to all contractors during regular safety meetings utilizing a Niska Gas Storage Concurrent Operations Permit. It is the responsibility of each contractor to understand the drilling and completion hazard control procedures employed prior to the commencement of work in an area where active drilling and completion activities are occurring. Do not enter a well pad site where drilling and completion activities are ongoing without the authorization of a Niska supervisor.

8.0 PRODUCTION AND PLANT HAZARDS AND CONTROLS

Gas Storage production and plant facilities present unique hazards that must be understood and mitigated by the contractor to ensure safe work performance while working at the facility. These unique hazards include but are not limited to:

- High pressure gas lines.

- High voltage electricity
- Condensate storage and handling
- High pressure wellheads
- Flammable/ Explosive environments

Niska production and plant hazards and controls will vary dependant upon the injection/ withdrawal cycle, the time of year and other operating conditions of the day.

Your Niska representative will communicate changing hazards and control measure to all contractors during regular safety meetings. It is the responsibility of each contractor to understand production and plant hazards, and the hazards control procedures employed prior to the commencement of work.

The Gas Storage Operations team has developed numerous site specific work procedures to help ensure the safe and efficient operation of the facility. Contractors must be aware of, and follow the applicable site specific work procedures when working at the Niska facilities.

Contractors are required to contact Operations prior to depressurizing/re-pressurizing and Niska lines or vessels. Additionally, contractors should not adjust process control set points and/or bypass process control equipment without the authorization of operations personnel.

9.0 EMERGENCY RESPONSE

9.1 Emergency Response Procedures

Contractors are required to have developed and implemented emergency response plans and procedures specific to their activities while working for Niska. Niska has prepared a facility specific emergency response plan for the facility that provides guidance in the event of an emergency at the site. Contractors should be familiar with their employer's and Niska's emergency

response procedures. Key emergency contact numbers are provided on the inside cover of this handbook.

If your training and experience indicates that a state of emergency exists, do not hesitate, initiate emergency response procedures immediately.

You must:	
Evacuate and Evaluate	Evacuate the immediate area, evaluate the situation and ensure there is no further danger to yourself or others.
Sound the Alarm	Alert other personnel of the situation, and immediately notify your supervisor and a Niska representative.
Get Help	Enlist the aid of others.
Give Help	Only when and if it is safe to do so, initiate rescue operations.
Secure the Area	Control ongoing hazards and limit access to the area.

SAFETY FOR YOUR OWN LIFE MUST BE YOUR FIRST PRIORITY. YOU CANNOT SAVE ANYONE IF YOU BECOME INCAPACITATED YOURSELF

Following an accident where a serious injury, fatality, explosion, or structural failure has occurred, state regulators will attend and investigate. The scene of the accident must be preserved and work must not resume until authorized by Niska.

10.0 SAFETY COMMUNICATIONS

Effective, clear, appropriate and timely communication between all personnel working for Niska is essential to ensure the safe execution of operations at the site. Information needs to be exchanged between Niska personnel and contractors on a regular basis. Your Niska representative has the responsibility to communicate any known site hazards and control measures to you prior to the commencement of work. In addition, the Niska representative will communicate details of activities that are being conducted by other contractors at the site that have the potential to impact your planned work. It is your responsibility to communicate to Niska any known hazards resulting from your activities that have the potential to impact others working at the site.

Niska supports the use of regular formal and informal safety meetings to promote safety awareness and hazard communication. One or more of the following meetings will be used at Niska to ensure effective safety communications between Niska and our contractors.

10.1 Meeting and Orientation

10.1.1 General Safety Meetings

General safety meetings, involving all workers at the site, will be held on as a required basis. These meetings provide an opportunity for all workers to gather and discuss general safety concerns, incident investigations findings and changing site conditions.

10.1.2 Pre-Job/Project Kick-Off Safety Meetings

Pre-Job or project kick off meetings are typically held between key contractors and Niska project and facility management prior to the start of active work at the site. The purpose of this meeting is to review the scope of work and outline Niska's EH&S expectations of our contractors. During the meeting hazards

are identified, hazard controls are agreed upon, and EH&S roles and responsibilities are clarified. It is the responsibility of the contractor to communicate the results of this meeting with their personnel.

10.1.3 Tool Box/ Tail Gate Meetings

Contractors are expected to conduct frequent toolbox/tailgate meetings to review the hazards and control measures associated with current work tasks. These meetings can also be used as a forum to discuss any recent EH&S incidents and the corrective actions taken to avoid reoccurrences. Contractors must keep a written record of these meetings that documents the time and date the meeting was conducted, the topics discussed, and the name of those in attendance.

10.1.4 Site Specific Orientations

Workers entering a Niska facility will receive an orientation on the handbook identifying the hazards, procedures and emergency response plans for the site. This handbook is a key component in this orientation. Contractors can expect to be quizzed to ensure that they have understood the information presented. You will also be required to sign an acknowledgement stating you have read and understand this document.

10.2 Reporting

10.2.1 Hazard Reporting

All hazards that cannot be immediately corrected must be reported to your Niska representative as soon as possible.

10.2.2 Incident Reporting

Niska requires immediate notification of all incidents, vehicle collisions, spills, releases, regulatory violations, and near misses at this work site. Immediate contact must be followed up with written incident reports to your Niska representative within 24 hours. Depending on the nature of the incident, immediate regulatory notification may also be required. Under

no circumstances must the scene of an incident that could be potentially investigated by Niska or a regulatory agency be disturbed, except to protect lives or eliminate imminent dangers.

10.2.3 Spill Reporting

All spills, regardless of volume, must be reported to Niska immediately. Depending on the nature of the spill, regulatory reporting may also be required.

11.0 ENVIRONMENTAL MANAGEMENT

11.1 Hazardous Material (Fuel) Storage

Niska Gas Storage requires all temporary storage facilities for hazardous materials including fuels and solvents be provided with secondary containment. The location of temporary storage tanks must be approved by a Niska supervisor.

Leaks from temporary storage tanks and associated piping are a major source of soil and ground water contamination. As well, storage of flammable and/or toxic liquids and gases can potentially be a hazard to public safety. Selecting appropriate tanks, placing these tanks in an appropriate location, and using proper secondary containment facilities can reduce these hazards.

Contractors are responsible for the care and control of any hazardous materials they bring to Niska facilities, including being responsible for any costs associated with the clean up and remediation of the spill or release of hazardous materials in their care and control.

11.2 Heritage Resources

If any evidence of a heritage resource (historical artifacts, archaeological sites) is found at the site, stop work and notify your Niska representative immediately. Niska will have the site

evaluated by a qualified archaeologist. Do not recommence work at the affected location until authorized to do so by Niska management.

11.3 Soil Conservation

All excavation, earth moving, soil stripping and brush clearing activities must be conducted in a manner that preserves the soil and permits future land reclamation or restoration.

- Competent personnel must identify soil horizons
- Top soil and other soil horizons must be kept separate during construction
- Measures to control soil wind and water erosion must be implemented
- Erosion barriers (silt fences) and surface contouring should be used as appropriate
- Construction and heavy traffic should be limited to times when conditions are dry or frozen to the extent practical

11.4 Spill Response

Contractors are responsible for the clean up and remediation to the satisfaction of Niska of any spills they cause. All spills on a Niska facility must be reported to Niska immediately and be managed in accordance with regulatory requirements.

11.5 Waste Management

Wastes generated on behalf of Niska Gas Storage (i.e. construction waste) must be managed in accordance with regulatory requirements and Niska instructions. Contractors are responsible for the proper management of waste generated solely by them (i.e. construction equipment used oil). Waste materials must be stored in a safe and environmentally responsible manner. Records must be kept of all wastes

generated, stored, and disposed of. Disposal methods are always subject to Niska's approval.

Waste management starts with material and process selection. When selecting a material (i.e. a degreaser) plan for disposal or recycling of the excess and the waste material prior to ordering. When waste materials are generated, they should be segregated in a way that minimizes the need to dispose and the costs of disposal. Recyclables should be separated from non-recyclable materials. Mixing (i.e. mixing of waste oil with a non-recyclable liquid) may reduce disposal options and increase the disposal costs.

11.6 Water Crossing

Water crossing include, but are not limited to, temporary and permanent bridges, road crossings using culverts, pipeline crossings and cable crossings. Water crossings are regulated under state and federal legislation. Contractors must ensure that they have proper authorization to construct water crossings on behalf of Niska and must understand and comply with any and all conditions associated with the crossing authorization.

11.7 Water Diversion

Federal and/or State Water Act regulations require an approval or license be obtained prior to undertaking a construction activity in a water body or diverting or using water from a surface water body or groundwater service. Contractors must ensure that they have the proper authorization to withdraw and use surface water from any location at a Niska facility.

CONTRACTOR ACKNOWLEDGEMENT

Contractor hereby acknowledges receipt of the Handbook entitled Niska Gas Storage Environment Health and Safety, Contractor Safety Handbook.

Contractor understands that this Handbook is intended to provide only an overview of safety practices and procedures, as well as a general corporate statement regarding health, safety and environmental matters.

Contractor acknowledges that the general framework contained in this Handbook has been, and will continue to be supplemented by detailed practices and procedures.

Contractor will become thoroughly familiar with and abide by the requirements as reflected in this Handbook and other company and regulatory requirements.

The Contractor Representative will review all pertinent safety practices/regulations with his or her employees and subcontractors prior to commencing work at any company location.

This Acknowledgement Form shall not alter or amend the terms of its written contractual arrangement with Niska, nor shall it alter the status of Contractor as an independent Contractor. Contractor acknowledges its obligation to take responsibility for compliance with all safety and environmental rules, regulations, ordinances, and other laws.

Contractor acknowledges that the guidelines contained in the Handbook are designed to mitigate, to the extent possible, the occurrence of incidents at the work site.

The Contractor is responsible for ensuring that all employees, subcontractors, and company personnel in the Contractor's work area comply with these practices and that persons or property are protected from injury and damage as a result of Contractor's operations on the work site.

Contractor should immediately direct any questions, comments or concerns that arise relating to this Handbook or any other company safety matter to the responsible on-site representative.

CONTRACTOR SIGN-OFF

Record(s) of completed contractor acknowledgements must be retained on site or on file for a period of 1 year.

The orientation certificate and sticker will deem the contract worker to be valid for the year.

I, _____, the Contractor (or the Contractor representative), acknowledge receipt and acceptance of the Niska ENVIRONMENT HEALTH AND SAFETY HANDBOOK.

Signature (Contractor)

Name (Print)

Company Name (Print)

Date (MM/DD/YYYY)

Signature (Niska Representative)

Name (Print)

Location



Niska
Gas Storage

Safety First

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