



Occupational Safety And Health Information And Instructions For Contractors

NGK METALS CORPORATION
917 US Highway 11 South
Sweetwater, TN 37874

HAZARD NOTICE

NGK Metals is committed to providing a safe work environment and requires contractors ensure the health and safety of its employees and the employees of its subcontractors. Hazards include but are not limited to harmful dusts, fumes, and vapors, strong acids, molten or hot metal, metal with sharp or jagged edges, electrical hazards, overhead hazards and moving vehicles. NGK requires contractors comply with all federal, state and local laws, codes and regulations. NGK's safety rules must be strictly observed at all times.

NGK Metals manufactures beryllium containing alloys. Beryllium is a recognized health hazard and listed carcinogen. Exposure to beryllium may lead to beryllium sensitization and chronic beryllium disease, a chronic lung disease for which there is no cure. NGK requires all contractors performing work on buyers premises study this publication along with the appropriate Safety Data Sheets ("SDS"), and NGK's publication "Speaking Out". If any of these are not in your possession contact NGK Metals Environmental Health 917 US Highway 11 South Sweetwater, TN 37874 (423)351-0435, or visit www.ngkmetals.com. Refer to NGK's SDS for the latest mandatory exposures levels established by the Occupational Safety and

Health Administration and recommended exposure limits established by the ACGIH. Appropriate precautionary measures for protection of workers and exposed individuals must be enforced when there is potential for exposure to particulate, dust, fume or vapor.

CONTRACT REQUIREMENTS

In no event shall a contractor commence work without a written contract that includes a health and safety plan and procedures to perform work in compliance with NGK and regulatory agency requirements.

CONTRACTOR RESPONSIBILITIES

Contract employees must perform their work safely. Contractor responsibilities when accepting contracts with NGK include the following steps. The contractor will:

1. Assure that the contract employee is trained in the work practices necessary to safely perform his or her job.
2. Instruct the contract employee in the potential fire, explosion, or toxic release hazards related to his or her job.
3. Assure that the contract employee knows the applicable provisions of NGK's Occupational Safety and Health Information and Instructions for Contractors, and NGK's Terms and Conditions for work on Buyer's Premise policy.
4. Inform contract employees of and then enforce safety rules.
5. Require that all subcontractors abide by the same rules to which the contractor is bound.

Contractors are responsible for ensuring that their employees adhere to the directives of the safety program when performing work for NGK. The contractor's responsibility cannot be delegated to subcontractors, suppliers, or others without written approval from NGK. Contractors are required to designate a qualified safety manager who is knowledgeable in safety, health, environmental protection, and fire prevention. Contractors are also required to designate a competent person for certain tasks, such as scaffolding, fall protection, trenching, hazardous energy control (lock-out/tag-out). If requested by NGK, contractors will submit a history of experience and qualifications for the person who is to manage the contractor's safety functions. Safety violations by contract employees constitute non-compliance with provisions of the contract and may result in immediate removal from NGK premises. Contractors are to train their employees on the

safety, health, environmental, and fire prevention requirements for the work they are to perform and enforce adherence to safe work practices and procedures. Contractors are required to maintain a safety training program designed for employees. Contractor personnel may be asked to show proof of training. At minimum, such programs are to provide employees with information on the following topics:

- A. Hazards present in their work assignment and surrounding area.
- B. Personnel protective equipment requirements.
- C. Proper procedures for safe work and reporting unsafe job conditions.
- D. Hazardous Energy control (lockout/tagout).
- E. Confined space and powered industrial trucks.
- F. Fire prevention and fire extinguishers.
- D. Waste disposal and environmental release requirements.

Contractors are responsible for planning and executing work according to the stated objectives of the safety program. Contractors are to arrange for the proper use, maintenance, and repair of work equipment. The contractor's manager, supervisor, or other person in charge who directs or allows employees to perform unsafe acts or to work in or around unsafe conditions will be immediately removed from NGK premises.

SUBCONTRACTOR DUTIES AND RESPONSIBILITIES

Subcontractor management, supervisors, and safety personnel have the same duties and responsibilities as the contractor to provide a safe working environment.

SUPERVISION

The contractor must assign a responsible person to supervise and oversee work throughout the entire contract period. The supervisor is responsible for implementing and maintaining the safety program for areas under the supervisor's control. Responsibilities include administration and coordination of the following activities:

- 1. Thoroughly reviewing accident investigations and initiating corrective action.
- 2. In the event of an accident, preparing and submitting a written report, and assisting in the investigation according to requirements.
- 3. Holding safety meetings.
- 4. Reviewing safety performance and taking action as necessary within the areas of responsibility.

5. Maintaining effective and prompt communication of safety matters.

6. Monitoring compliance with established environmental and pollution control standards and regulations.

7. Assigning duties to subcontractors, checking work areas, making housekeeping inspections, and keeping records of conditions found and corrective actions taken.

8. Requiring employees to use personal protective equipment such as safety glasses, Body harnesses, respiratory protection equipment and head and eyewear protection.

9. Maintaining effective communication of safety matters to employees.

10. Assisting in the development and communication of safe work procedures for unusual or hazardous operations.

11. Maintaining compliance with the requirements of federal, state, local, and other Agencies, and with the requirements of the general contractor's and NGK's safety manuals.

If any contractor personnel can not read, write, speak, and understand English, a bilingual contractor supervisor capable of interpreting and communicating with both buyer and contractor personnel in their primary language(s) must be provided as part of the work team.

REGULATORY COMPLIANCE

The contractor shall comply with all federal, state and local codes and regulations including but not limited to the Occupational Safety and Health Act, the Tennessee Occupational Safety and Health Act (TOSHA), the Federal Resource Conservation Act, the Federal Comprehensive Environmental Response, the Federal Compensation and Liability Act, and the Toxic Substances Control Act.

OSHA REGULATIONS

Contractors must know, understand, and comply with the Occupational Safety and Health Act of 1970 as it pertains to their work responsibility. This act is administered by the US Department of Labor in conjunction with various state OSHA (or OSHA-approved) programs. Contractors must comply with OSHA regulations and the General Duty Clause that states each employer "shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." The contractor must comply with OSHA recordkeeping requirements

including OSHA Form 300, Log of Occupational Injuries and Illnesses, and the First Report of Injury Form. The contractor must report fatality cases and accidents in which three or more people are hospitalized over-night in one incident to OSHA within eight (8) hours of the occurrence as required by law.

WORK HOURS

NGK Metals business hours are Monday through Friday 7 am – 3:30 pm. Any deviation from this schedule must be approved in writing prior to commencing work.

SECURITY

All contractors must sign in and out at the security building to obtain site access. Contractor vehicles must be parked in the visitor parking area unless given permission by the designated NGK representative to enter the facility. NGK Metals is not responsible for the security of contractor's equipment or vehicles while on NGK Metals property.

SAFETY PROGRAM IMPLEMENTATION

Contractors are responsible for establishing and implementing a safety program for their employees. This program will include maintaining and auditing safety performance for compliance with applicable federal, state, local regulations and with established safety and environmental requirements, including but not limited to the contractor's safety and hazard communication programs. Contractors are to conduct regularly scheduled safety inspections of the work being conducted by the contract and subcontract personnel. The scope or duration of work may regulate the frequency of these inspections. Contractors must take immediate corrective action when a violation of job safety, fire, or environmental safety hazard is observed. Contractors are to regularly review their safety performance. Failure to correct a problem may result in work stoppage in the related area, and work will not be permitted to resume until the problem is corrected. Work stoppages need to be communicated to NGK. Contractors are required to administer their own safety activities and are responsible for the safety of their employees. If requested by NGK, contractors will submit a written copy or description of their company's safety program. The contractor's safety program must meet federal, state, and local regulatory requirements and be equivalent to or more stringent than NGK's program. Where the programs are in conflict or the contractor's

program does not address an issue, the NGK safety program will govern. If required by the project, contractors and their safety manager or designee must attend a pre-work safety conference with NGK prior to beginning work. The conference is to review procedures, forms, record keeping and reporting, and to ensure a clear understanding of the safety program relevant to the work to be performed.

SAFETY MEETINGS, RECORDS AND MINUTES

Contractors should hold regularly scheduled safety meetings and require attendance by employees. Accident prevention should have a prominent place on the agenda, and the meeting records should state the specific items discussed. Each supervisor should hold safety and environmental training meetings in their work area with their on-site staff, and review specific procedures pertinent to the staff's activity. This meeting provides an opportunity to point out hazardous conditions or unsafe work practices, and discuss safety and environmental rules and regulations, safe working procedures, analysis of accidents, and potential hazards. Records and minutes of safety meetings are encouraged, including recording attendees and subjects covered. The contractor's safety manager will attend meetings with NGK personnel as required.

HAZARD COMMUNICATION

NGK uses a variety of chemicals that contractor may encounter. NGK maintains SDSs for these chemicals. Contractor may request a SDS of any chemical to which they may be exposed. Contractors must establish and maintain a written, comprehensive hazard communication program that complies with applicable state law and includes:

- A. A list of hazardous materials in the workplace.
- B. Material safety data sheets.
- C. Provisions for container labeling.
- D. An employee training program.

HAZARDOUS MATERIALS

Contractors are responsible for the safe use, storage, transportation, and disposal, in accordance with applicable laws, of chemicals or hazardous materials used in the performance of their work. Contractors must have available for NGK a list of chemicals or materials used in the performance of their work and a copy of the SDS for each material. The receipt of the list or SDS by NGK does not relieve the contractor from requiring employees and other

persons performing work to assume responsibility for the safe use, storage, and disposal of hazardous materials. Contractors must require their suppliers, agents, and employees of other persons performing work to use an approved substitute chemical or material in the place of a chemical or material that NGK requests not be used for the work. Chemicals or materials brought on site by employees and other persons performing work must bear a label stating the identity of the chemical or material, hazards associated with it, and the name of responsible party bringing the chemical or material onto the site. Waste resulting from the work must be properly disposed of by the responsible contractor in accordance with local, State and Federal regulations. If uncertain about proper waste disposal, contact the NGK environmental representative.

Hazardous materials, pollutants, and contaminants encountered or generated from soils or facilities in place prior to commencement of work, or from portions of the contract already completed by other contractors, are to be reported to NGK. These will be disposed of as in accordance with applicable laws. Contractors are required to keep accurate records of the types and quantities of waste, including hazardous waste, and the facilities in which the wastes are treated, incinerated, or disposed. The contractor must provide NGK with copies of these records. Liquids (including muddy water) or chemicals should not be pumped or allowed to flow into a sewer. Do not clean equipment or change lubrication or pneumatic fluids in areas that are not equipped with spill contaminant and control facilities.

Each new employee of the contractor will attend a health and safety orientation that includes the following information and training:

- A. An overview of the OSHA hazard communication standard.
- B. The hazardous chemicals present at his/her work area.
- C. The physical and health risks of the hazardous chemicals.
- D. Symptoms of overexposure.
- E. How to determine the presence or release of hazardous chemicals in the work area.
- F. How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices and personal protective equipment

G. Steps the company has taken to reduce or prevent exposure to hazardous chemicals.

H. Procedures to follow if employees are overexposed to hazardous chemicals.

I. How to read labels and SDSs to obtain hazard information.

J. Location of the SDS file and written Hazard Communication program.

Prior to introducing a new chemical hazard into the work area, each employee of the contractor in that section will be given information and training as outlined above for the new chemical hazard.

HAZARDOUS MATERIALS LIST

Contractors must prepare a hazardous materials list before the materials arrive on site. The hazardous materials list must contain:

- A. The chemical name or the common name used on the SDS or container label.
- B. The quantity stored on site.
- C. The area where the hazardous material is stored and to what extent it may be stored at altered temperature or pressure.

The hazardous materials list must be prepared for each work area and updated within 30 days of the addition or removal of a hazardous material, or when the quantity stored materially changes. Contractors may be requested to submit electronic or hard copies of the hazardous materials list and material safety data sheets to the NGK representative before the hazardous materials are brought on site. Hazardous materials may not be stored on site without written consent from the site safety manager.

MATERIAL SAFETY DATA SHEETS

Contractors must maintain the most current material safety data sheets provided by manufacturers and distributors of the material. If the contractor does not receive an SDS from the manufacturer or distributor, the contractor should submit a written request for one. The SDS must provide information in the areas required by OSHA in 1910.1200(g)(2). A copy of each SDS must be maintained at the work site. The copy must be easily accessible to contractors, employees, and NGK personnel.

DRIVERS LICENSE

Contractor personnel who operate vehicles or heavy equipment on buyer's premises shall have

a valid driver's license appropriate for the vehicle or equipment being operated.

ILLEGAL DRUGS, ALCOHOL, FIREARMS and WEAPONS

NGK has established the following substance abuse policy pursuant to T.C.A. Section 50-9-100 et. seq. and requires contractors on NGK's premises abide by the policy:

(1) It is a violation of company policy for any employee to use, sell, trade, offer for sale, or offer to buy illegal drugs or otherwise engage in the illegal use of drugs on or off the job.

(2) It is a violation of company policy for any employee to report to work under the influence of or while possessing in his or her body, blood, or urine, illegal drugs in any detectable amount.

(3) It is a violation of company policy for any employee to report to work under the influence of or impaired by alcohol.

(4) It is a violation of company policy for any employee to use prescription drugs illegally, i.e., to use prescription drugs that have not been obtained or in a manner or for the purpose other than as prescribed. However, nothing in this policy precludes the appropriate use of legally prescribed medications.

(5) Violations of this policy are subject to disciplinary action up to and including termination.

Contractor shall meet all DOT requirements for drug and alcohol testing if contractor personnel are performing DOT-regulated work.

NGK prohibits individuals from bringing firearms, ammunition, explosives, or other weapons of any kind onto NGK's property at any time. The term "possess" means to have on your person, in your vehicle, or the vehicle assigned to you, or in other property in your presence or under your control.

SAFETY EQUIPMENT

Eye protection is required in the plant at all times. NGK supplies nonprescription safety glasses; however, the contractor is responsible for supplying his employees with more complete eye protection for higher-risk operations such as welding, grinding, chipping etc. NGK supplies disposable lab coats that are to be worn at all times inside the manufacturing facility. The contractor shall, at its cost, assess the need for, supply and maintain all required safety equipment required for use by contractor

personnel for each job or work task. Required equipment may include but is not limited to: personnel protective equipment, respiratory protection, monitoring equipment, fall protection, lockout/tagout equipment, first aid, fire-fighting, communications etc.

Contract employees must be trained on the use, inspection, care, and storage of all personal protective equipment.

RESPIRATORY PROTECTION

Respiratory protection devices approved by NIOSH must be worn by employees exposed to hazardous concentrations of dust, fumes, mists, gases, smoke, sprays, vapors or other hazards as required by OSHA. A respiratory protection program must be established that includes medical surveillance, training, equipment selection, storage, and maintenance, fitness testing and recordkeeping.

EQUIPMENT

All contractors shall provide equipment for the performance of their work. This equipment shall conform to required standards of the particular industry for the type of work to be performed. The contractor shall properly secure and identify all his tools and equipment. NGK's policy prohibits the lending or furnishing of tools and equipment to contractors by NGK employees, and NGK employees are prohibited from borrowing any tools from the contractor or his employees. After the completion of contractor's work on our premises, all of the contractor's equipment and tools shall be thoroughly cleaned before removal from the plant site.

SMOKE-FREE WORKPLACE

NGK Metals is a smoke-free workplace. The use of tobacco products is prohibited on NGK property.

HOUSEKEEPING

Maintaining a clean work environment is the responsibility of the contractor. The contractor is responsible for properly managing all waste generated in the course of the project in accordance with federal, state, and local regulations. Passageways, exits, and fire fighting equipment must not be blocked or obstructed.

INJURIES

First aid kits must be provided by the contractor for treating minor injuries. NGK must be

informed in writing of any contractor OSHA recordable injury that occurs on buyer's premises. In the case of a serious accident, call the emergency telephone numbers for immediate assistance and to obtain necessary first aid. Clear the area and keep away non-essential personnel. Provide assistance to rescue personnel if requested. After proper evacuation of the injured employee, do not disturb or remove anything in the immediate area of an accident scene without NGK permission. The responsible contractor must make a full investigation and submit an accident report to NGK within 24 hours of the occurrence.

HOT WORK

Secure hot work permit from the maintenance engineer or safety engineer before proceeding with any welding or burning operation. Area must be free of combustible materials, or combustibles are to be protected so as to prevent a fire. Fire extinguishers are to be stationed in the immediate hot work zone. (See Hot Work Permit for details).

LOCKOUT TAGOUT

All work by contractor on buyer's premises must be in accordance with OSHA's Control of Hazardous Energy (Lockout/Tagout) Rule. The contractor shall lockout/tagout machinery or equipment when servicing or performing maintenance when the unexpected startup of the equipment or release of stored energy could cause injury. Contractor may not tamper with any NGK employee or other contractor lock or tag.

ELECTRICAL SAFETY

Contractors performing electrical work must at a minimum conform to the following regulatory guidelines: Federal Occupational Safety and Health Act (OSHA), National Fire Protection Association (NFPA), and the National Electric Code (NEC).

FALL PROTECTION

Fall protection training and equipment is required when working 6ft or more above a walking or working surface that is not permanently railed. On scaffolds, the trigger height is 10 feet. For steel erection activities, the trigger height is 15 feet (see 1926.750 for details/exceptions).

FOOD

Break rooms are available for use in the wrought and strip building. The consumption of food and drink in manufacturing areas is prohibited.

COMPRESSED GAS CYLINDERS

Fasten firmly by chain or rope to a solid object. Avoid dropping cylinder. Keep cylinder away from heat. Replace valve cap when cylinder is not in use.

FIRE

Notify the Manager of Safety & Health whenever any flammable gases, liquids or solids are to be used other than for welding or burning in any section of the plant. The sprinkler system is not to be disabled in any manner without the permission of the plant maintenance engineer. Fires are to be reported immediately to the designated NGK representative. The plants fire insurer fire code requirements must be adhered to and obeyed. In the event of a fire, use the nearest fire alarm pull station, if available, and evacuate the area immediately. If the pull station does not activate (fire alarm is NOT sounding) or if no pull station is available, call the emergency telephone numbers from the nearest phone located in a safe area. Contract employees are not required to fight a fire, but are expected to attempt to extinguish the fire after activating the fire alarm system if they are trained and can do so safely. Any contractors attempting to extinguish a fire should have been trained within the past 12 months in the safe use of fire extinguishers. Keep non-essential personnel away from the fire. If explosive materials or compressed gases are involved or other hazards may exist, ensure that affected personnel are immediately evacuated to a safe distance. Contractor personnel are to evacuate to the security office. Once evacuation is complete, contractors must account for everyone for whom they are responsible. If an employee is missing, notify local security or fire department personnel immediately. Responsible or affected contractors must make a full investigation of the incident and submit a written report to NGK within 24 hours of the occurrence.

EVACUATION

Immediate evacuation is required when audible alarm is sounded and/or an announcement is made to evacuate. Contractor employees must leave buildings by the closest/safest exit route as quickly as possible. Once outside the building, contractor employees must assemble by the

guard booth and report immediately to the contractor supervisor. Contractors must not re-enter buildings until instructed by the NGK Emergency Coordinator.

EMERGENCY REPORTING PROCEDURES

Immediately report an emergency on NGK property to security by telephone, radio, or messenger. Place emergency phone numbers in conspicuous places throughout the work area and on telephones. Photographs of emergency situations are prohibited unless security gives written approval. Do not make comments regarding emergencies to a media representative. Refer media inquiries to a NGK site safety representative. If there is an evacuation, immediately report to the appropriate assembly area.

WEATHER RELATED EMERGENCIES

In the event of a tornado or severe weather emergency, an announcement may be made over the PA system to take cover. Contractor employees must take cover in the designated tornado shelter areas located at each facility. Contractor employees may not resume work or leave the area until given notice by NGK's Emergency Coordinator.

SPILLS AND INCIDENTAL RELEASES OF HAZARDOUS MATERIALS

Contractor employees must report immediately any spill or release of chemicals or hazardous materials to their designated NGK representative.

PORTABLE GAS COMPRESSORS AND GENERATORS

Locate portable gas compressors and generators outside of buildings. Permission must be secured from the designated NGK representative to locate them indoors.

TRENCHES, DITCHES, AND FLOOR OPENINGS

Slope sufficiently according to the nature of the soil to prevent slides. If sloping is impractical, shoring is to be used and is mandatory in all cases as specified by government code.

Warning lights, barricades, and fences shall be appropriately provided by contractor to protect persons from falling into excavations and floor openings or being struck by objects.

STATUS AS CONTRACTOR

The contractor, not the NGK site representative, retains the authority to hire, fire, discipline, supervise, control, direct and otherwise modify the terms and conditions of employment of the contractor's employees. NGK's safety and health policies do not create an employment relationship or in any way modify the contractor's employee's independent contractor relationship with NGK.

CONTRACTOR UNIFORM AND SHOWER POLICY

Any employee or contractor working in the production areas greater than four hours per day is required to wear a uniform provided by NGK and shower before leaving the property.

1. Contractors will be met at the security building by an NGK employee who will review safety policies.
2. At the security building, contractors will be provided safety glasses and will be escorted to the contractor locker room.
3. Contractors will enter the locker room through the "clean side" and put their clothes and personal effects in a locker. Locker padlocks will be provided for security. Contractor will be provided clean cotton coveralls. Rubber overshoes will be provided and shall be worn over the contractor's shoes.
4. The contractor shall exit the locker room through the "dirty side" and proceed to work.
5. Prior to leaving the NGK property contractors must change and shower using the procedure below.
6. Enter the locker room through the "dirty side" door.
7. Remove the rubber overshoes and place them in the dirty shoe bin.
8. Place the overalls in the laundry bin.
9. Shower.
10. Place wet towels in bin provided.
11. Dress in street clothes and exit locker room through "clean side" door into hallway and exit building.
12. Fifteen minutes per day will be allotted per day for Contractors to shower out.