

CONTRACTOR ENVIRONMENTAL And SAFETY HANDBOOK



NORTH AMERICA LLC

Mansfield, Ohio

Revision September 16, 2019

NANO GATE NORTH AMERICA, INC. CONTRACTOR ENVIRONMENTAL AND SAFETY PROGRAM

Nanogate North America Environmental Commitment

Preserving and Improving the Environment by:

- **Reducing the amount of energy used;**
- **Consuming fewer raw materials; and**
- **Reducing the amount of pollution**

ISO 14001 Environmental Management System

Nanogate North America has registered all of its major manufacturing sites to the ISO 14001 Environmental Management System standards. All locations demonstrate a strong commitment to environmental regulatory compliance, resource conservation, decreased energy use, and pollution prevention. The ISO 14001 standards and Nanogate North America procedures must be followed by all contractors working at Nanogate North America locations.

Nanogate North America Safety Policy

Nanogate North America is committed to maintaining a workplace that is safe for all Employees, Contractors, Customers and Visitors.

Contractor Responsibilities

1. Contractors will purchase and maintain liability insurance to protect themselves from claims under Worker's Compensation and other employee benefit acts, claims, or damages because of bodily injury (including death) and from claims for damages to property that may arise out of, or result from the contractors operations. Certificates of Insurance must be submitted to the Nanogate North America EHS Department prior to commencement of work.
2. Each contractor will be responsible for managing and supervising their own safety program. Nanogate North America employees may observe and assist in the implementation of the Contractor Environmental and Safety Handbook, but this in no way relieves the contractor of the responsibility for the safety and health of their employees and their environmental responsibility. The contractor must provide Hazard Communication training, to the contractor employees.
3. Contractors are responsible for the actions of their employees. Inappropriate behavior by contractor employees will not be tolerated and may lead to expulsion from the work site, termination of the contract, and criminal prosecution, if the misconduct warrants it.
4. Contractors are responsible for having all required licenses, permits, and certifications necessary to fulfill the contract in compliance with applicable laws and regulations. Also, observance of all Federal, State, and Local safety, environmental, and health codes and regulations is a requirement of each contractor's contract. Company employees have the authority to demand compliance with any such regulations immediately, if serious, or through the site supervisor, if minor.
5. The contractor shall ensure that his/her employees are properly identified, have been instructed in the boundaries of their work areas, and have been instructed to avoid operating areas.

6. Contractors shall conduct and maintain an educational program to ensure the inclusion of adherence to environmental safety instructions as a part of employee job assignments.
7. Scrap, trash, and other wastes shall be placed in designated containers. Work areas must be cleaned up continually as the job progresses. Cords and hoses shall be routed in a manner that will not present a tripping hazard. Equipment must be stored in a stable position (tied, stacked, or chocked) to prevent rolling or falling. A safe access-way to all work areas and emergency exits must be maintained.
8. All contractors must adhere to OSHA regulations and Nanogate North America Safety Policies and Procedures, which can be found at www.njstraining.com.
9. Do not flush anything down the drain, any spills need to be reported to the maintenance manager.

SAFETY RULES:

For additional safety rules, please refer to the Nanogate North America training website or employee handbook. The following safety rules and procedures apply to all contractor employees working at this facility:

1. The Contractor representative will coordinate all activities with the facility Maintenance Manager.
2. The Maintenance Manger will assure that all contractor and subcontractor employees are aware of and comply with all of the following safety rules and regulations:

- Safety glasses with side shields and steel-toed boots must be worn at all times while working within the production area of the facility, if they are required.
- There will be no running, horseplay, or other type of activities, which could endanger the health or life of any person at the facility.
- All federal, state and local environmental, OSHA, and safety laws will be followed at all times by all personnel.
- Smoking is only permitted in designated smoking areas at each facility.
- Forklifts / Industrial trucks and cranes (e.g., forklifts, man lifts, scissors lifts, etc.) shall be operated only by trained and authorized employees. Contractor employees will never operate this equipment unless certified through Nanogate North America Inc., training program.
- Contractor employees shall immediately report all injuries, workplace-related illnesses, incidents of unsafe activities, and spills of materials immediately to the Nanogate North America Maintenance Manager.
- Adequate illumination and warning lights shall be provided if normal pathways or routes of egress are obstructed.
- All work and storage areas shall be kept in good order with cleanups at least on a daily basis. Tools, fasteners, and /or other debris are to be kept out of walkways. Exposed fasteners must be protected, bent over, or removed immediately.
- Adequate protection and markings shall be provided around all floor openings, hatchways, elevated platforms, excavations, etc. Unless an unusual circumstance is presented, protection shall consist of

standard guardrails 42 inches high with an intermediate rail (and a 4 inch high toe board where appropriate).

- The work area beneath overhead work shall be posted and kept free of personnel by appropriate barricades, rope fencing, etc.
- All scaffolds and ladders shall be erected and maintained in accordance with OSHA regulations and good safety practices.
- All compressed gas cylinders being transported shall have safety caps in place and shall be secured against movement. Overhead handling shall be by rack device only. All cylinders shall be chained or secured to an approved cart or building structural member to prevent falling. Cylinders shall be secured in an upright position away from any source of heat or flame.
- Bulk storage of flammable materials shall be outside of buildings and only with the approval of Nanogate North America. When flammable materials are required to be used in buildings, they shall be held to a one-shift supply and stored in only areas approved by Nanogate North America. Flammable liquid storage shall be stored and handled in accordance with County, Federal, State and Local regulations.
- Contractors shall furnish and maintain means to properly ventilate all indoor work areas to the outside atmosphere in accordance with County, Federal, State and Local regulations.
- Should it become necessary to block or restrict access to any gates, docks, or doorways, the Maintenance Manager must be notified. Fire equipment, such as extinguishers, and associated valves shall not be blocked unless absolutely necessary and with the prior approval of the Nanogate North America Maintenance Manager.

HAZARD COMMUNICATION:

1. Nanogate North America maintains a hazardous communication program and the plan is located on the intranet webpage.
2. A current inventory of hazardous materials and the associated MSDSs/SDSs are located on the company intranet page and are available to any person requesting them.
4. The Contractor and the Maintenance Manager shall determine and coordinate the specific hazards and materials which may be encountered in the areas where work will be performed.
5. The Contractor will be required, prior to performing any work at the facility, to provide a list of hazardous materials which will be used and all associated MSDS/SDS sheets for such materials.
6. The Contractor will review the materials to be used and understand the hazards that may be created by the use of any hazardous materials onsite. This review must include any environmental, fire, health or reactive concerns. Any concern identified must be discussed and reviewed by the Maintenance Manager prior to beginning work at the facility.
7. All containers, regardless of size, must be properly labeled with the name of the material and the associated hazards. Original containers should have the manufacturer's labeling in place and should always be legible.
8. The contractor is required to have all containers properly labeled, in accordance with current GHS Hazardous Communications requirements.

EMERGENCY RESPONSE:

1. This facility maintains an emergency response plan for each plant location which can be viewed at www.jayindustriestraining.com.

2. Means of communicating evacuations at this facility are as follows:

- | | |
|------------------|----------------------------|
| ➤ Fire | Fire Alarm/Intercom/Verbal |
| ➤ Tornado | Intercom/Verbal |
| ➤ Chemical Spill | Intercom/Verbal |

3. Relocation points for emergency response are as follows:

- | | |
|-----------|--|
| ➤ Fire | In the parking lots at each division |
| ➤ Tornado | Any bathroom, basement area or interior office without windows |

4. If an alarm or announcement for an evacuation is made, all personnel shall evacuate the facility immediately using the closest exit away from the fire or spill. All contractor and subcontractor personnel shall proceed to the designated meeting area for the facility and notify the supervisor of the contractor. Their supervisor will then report to their Nanogate North America contact, the status of all personnel under his/her command.

5. In case of a tornado, all contractor and subcontractor personnel shall proceed to the designated meeting area for the facility and notify the supervisor of the contractor. Their supervisor will then report to their Nanogate North America contact the status of all personnel under his/her command.

MEDICAL EMERGENCIES/ACCIDENTS

1. All workplace related injuries and illnesses must be reported to the Maintenance Manager.
2. An incident / accident report will be completed for all injuries. All reports must be forwarded to the Maintenance Manager and the EHS Department.
3. Any accidents resulting in a mandatory OSHA notification must be reported to the Maintenance Manager and the EHS Department immediately.
4. All personnel should only provide the level of first aid that they are qualified to perform. Emergency services will be called for all accidents requiring more than ordinary first aid. Emergency services can be contacted by calling **911**.
5. All Bloodborne contaminated waste from all injuries must be segregated and disposed of as a biohazard, using the proper containers in the facility and the BBP kits.

PERSONNEL PROTECTIVE EQUIPMENT:

1. All personnel who will be in the production portion of the facility shall wear the proper personnel protective equipment that is required, such as safety glasses with side shields, steel-toed boots or protective clothing. Hard hats will be required in all areas where the contractor activities require such protection.
2. All personnel who are required to wear any type of PPE will be required to be trained by the contractor in its proper use and care. All medical and associated requirements such as medical approvals and audiometric testing must also be accomplished in compliance with the appropriate OSHA standard.

3. All PPE must be supplied by the contractor and must meet the requirements as set forth in the OSHA and ANSI codes.
4. Contractors may not work in areas in which employees are wearing PPE not supplied to the contractor employee or PPE which the contractor employee is not trained to use (respirators).
5. Additional PPE, not required by Nanogate North America but required by the type of work being completed by the contractor and/or subcontractor, must be used and all affected personnel must be properly trained and qualified to use such equipment.

TOOLS AND EQUIPMENT

1. Use of Nanogate North America company equipment and/or tools is strictly prohibited. Any exceptions must be detailed in the contract.
2. All tools, electrical cords, scaffolds, ladders, and equipment used shall be in good working order and shall be used in accordance with all OSHA regulations and safe work practices.
3. Electrical ground-fault protection is required for all portable tools, equipment, and all other 115-120 volt single-phase power connections.
4. All contractor and subcontractor personnel permitted to use any material handling devices (forklifts, cranes etc) shall be properly trained and certified in accordance with all applicable regulations.

HOT-WORK PERMIT PROGRAM

1. A Hot Work Permit signed by an authorized Nanogate North America employee is required before commencing any activities involving open flames, welding, spark producing tools, electric motors, or other ignition sources.
2. Hot work shall be performed as defined by the Nanogate North America Hot Work Program.

LOCKOUT/TAGOUT PROGRAM

1. Machines and equipment must be isolated from all potential hazardous energy, and locked or tagged out before contractor employees perform any service or maintenance in which the unexpected energization or start-up or release of stored energy could cause injury.
2. All contractors shall meet the minimum requirements defined in the facility Safety Procedure for Lockout/Tagout (LOTO) including but not limited to:
 - ◆ Notifying all affected personnel as per the procedure
 - ◆ Recognizing all sources of energy identified by the procedure
 - ◆ Shutting equipment down using normal means
 - ◆ Locking out all sources of energy
 - ◆ Releasing any stored energy
 - ◆ Verifying that all aspects of the Lockout procedures have been completed and that the machine is in fact de-energized

- ◆ When work is completed the contractor employee shall remove all tools, put guards back in place, and notify employees in the area that equipment is being restored to its normal operation.
- 3. The facility maintains a written LOTO program that is located on jayindustriestraining.com.
- 4. The contractor will be required to provide all necessary LOTO devices required to perform the work specified.
- 5. The contractor will be required to notify their Nanogate North America contact prior to instituting any LOTO procedure on any specific piece of equipment that could affect day to day operations of plant production.
- 6. Only those contractor personnel that have been trained as authorized employees may perform LOTO activities.
- 7. In order to identify all potential sources of energy, the contractor must consult with the area supervisor before performing any lockout/tagout procedure.

CONFINED SPACE ENTRY

1. A "confined space" is a space that
 - Is large enough and so configured that an employee can bodily enter and perform assigned work; and
 - Has limited or restricted means for entry or exit (i.e. tanks, vessels, silos, storage bins, hoppers, pits), and
 - Is not designed for continuous employee occupancy.
2. The contractor will not enter any space either labeled or listed as a confined space without approval from the Maintenance Manager.
3. For all spaces designated as a "Permit Required Confined Space," a

permit must be completed and must be reviewed by an approved Nanogate North America supervisor.

4. If the contractor plans to do confined space entries, the contractor must review the Nanogate North America Confined Space program to ensure that they meet requirements defined therein.
5. The contractor must complete all requirements described in the permit.
6. The contractor is responsible for providing all personnel required for a safe entry including Entry Supervisor, Authorized Entrants, and Attendants.
7. The contractor must arrange for an emergency rescue team to be available and able to respond in a time and manner required by the hazards present.
8. The contractor will be required to immediately leave the space upon any unanticipated event occurring within the space. The contractor will then need to coordinate with the Maintenance Manager to determine the cause and solution to the unexpected event before the space can be entered once again.
9. The contractor will be required to debrief the Maintenance Manager on all aspects of the space entry including any unanticipated events which may occur during the entry. The contractor will be required to leave all completed and terminated permits with the Maintenance Manager.

WASTE

1. Contractors shall keep the premises free from accumulation of waste material and rubbish.
2. Contractor waste shall be managed according to appropriate waste management regulations, and as directed by the EHS Department or

the Maintenance Manager. At no time is contractor-generated waste to be commingled with Nanogate North America waste streams.

3. No waste, either hazardous or non-hazardous (household trash excluded), is to be placed in a solid waste receptacle (dumpster), stormwater or city drain, or the environment.
4. All waste streams are required to be stored in proper containers and must be kept closed at all times. The containers must be properly labeled and stored in such a manner as to minimize the threat of fire, explosion, or unplanned release.
5. All shipments sent offsite of any regulated waste must be done only with the approval of the EHS Department.
6. All spills must be cleaned up immediately and reported to the EHS Director and or Maintenance Manager.
7. Any spill, which could threaten the health of contractor or facility personnel, will require that the area be evacuated immediately. The EHS Department and or Maintenance Manager shall be immediately contacted and the area evacuated of all personnel as required by the facility Emergency Response Plan.
8. Any excess material/chemicals which were brought onsite by the contractor and not used and still retain a useful and beneficial purpose will be removed by the contractor as a hazardous material and will not be left onsite as a waste material.

QUESTIONS AND ISSUES

1. The Maintenance Manager at each Division shall be responsible for questions and issues that arise in the area of Contractor Environmental and Safety.
2. The EHS Department shall be available to assist with any questions or issues that arise.
3. Each facility and plant has unique safety and environmental issues. The Maintenance Manager must insure that the Contractor is aware of the Environmental and Safety issues that may be present in the facility where they are working.

NONCOMPLIANCE

Failure of the Contractor or its employees to comply with Environmental and Safety rules, regulations, and policies may be cause for removal from the job and replacement, including cancellation of the contract or working relationship.

CONTACTS

Dan Hensel	Plastics Maintenance Manager	419-521-0168
Scott Bobst	Nanogate North America Environmental Manager	419-521-0366
Ralph Hall	Environmental Health & Safety Director	419-521-0338

NANOGATE NORTH AMERICA LLC. CONTRACTOR SAFETY HANDBOOK ACKNOWLEDGEMENT

COMPANY NAME

NAME (Please Print)

JOB TITLE

This is to acknowledge receipt of the Nanogate North America Contractor Safety Handbook. The objective of this handbook is to provide contractors and their employees with the basic information required to perform work at Nanogate North America. The rules, procedures, and requirements presented here do not replace the contractor's responsibility to comply with the Federal, State, and Local laws and regulations. Every appropriate act or condition cannot be covered with rules and procedures. Therefore, it is the responsibility of contractors and their employees to exercise good judgment when performing work at Nanogate North America. Failure to follow all rules and procedures presented herein, or failure to exercise good judgment, will result in work stoppage and possible contract termination.

I acknowledge receipt of this handbook and an understanding of the contents, and agree to abide by the requirements within.

SIGNATURE

DATE

NANOGATE NORTH AMERICA REPRESENTATIVE SIGNATURE

DATE