Safety and Health Program

Revision Date: January 2024

CONTENTS

I. SAFETY PROGRAM POLICY STATEMENT

Welcome to the M. G. Newell Safety Manual. The Manual has been modified and launched as a new and updated effort for our company to stay current on the latest regulations, work practices, and technology to keep all our employees and contractors safe while going about their daily activities.

The safety and health of every employee is a top priority in our company. Management understands the need to maintain a safe working environment. We expect every employee to perform their work in accordance with safe standards and practices.

Safety and health will only be achieved through teamwork. Everyone must join together in promoting safety and health and taking every reasonable measure to assure safe working conditions in the company. It is the intent of M. G. Newell to promote safe working attitudes. We will do this by maintaining a safety and health program conforming to best practices of organizations of our type and to encourage and require cooperation with the program and cooperation amongst all employees and contractors.

We hope the reader finds this Manual a useful tool in the promoting and following safe working practices. We encourage and accept feedback to this manual and our system as a whole.

Michael Sherrill
President

Tony Saenz, PE
Vice President, Engineering

Garry Moore
Director of Human Resources and Safety

II. SAFETY PROGRAM GOALS

The goal of this safety program is the prevention of all accidents. An accident, as referred to in this manual, is any unplanned or unintended event that disrupts the orderly process of performing work. All accidents by this definition may result in personal injury, equipment damage, property, or material damage, or a combination of these factors. Accidents also result in loss due to job disruption and loss of productivity. Therefore, prevention of all accidents must be the objective of our safety effort, rather than only those situations where the potential for serious loss is perceived.

The effectiveness of this program will depend upon the participation and cooperation of management and employees in carrying out the following basic procedures:

a. Planning all work to minimize accidents that may result in personal injury, property damage and loss of productive time.
b. Maintain a system for promptly detecting and correcting unsafe practices and conditions.
c. Make available and enforce the use of personal protective equipment and mechanical guards.
d. Maintain an effective system of equipment and tool inspection and maintenance.
e. Investigate all accidents and near misses, determine cause, and take the necessary corrective action.
f. Establish educational programs to maintain interest and cooperation of all levels of employment.

III. RESPONSIBILITIES

Management

It is the primary responsibility of management to see that all work is carried out in the safest manner possible. To ensure that this responsibility is met, management must take an active role in all areas of the safety program.

Under the Occupational Safety and Health Act of 1970, "each employer shall furnish to each of his employee's, 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."

Management recognizes that there are many humanitarian and economic reasons for keeping accidents at an absolute minimum and is prepared to take any and all necessary steps to ensure the safety of our employees. All accident reports will be monitored by top management.

Safety Director

The Company Safety Director shall have the following responsibilities:

- Updating/revising this Safety Program when needed.
- Help in identifying loss exposure and alternatives to mitigate the loss potential.
- Providing information about safety.
- Providing support to managers and field personnel that are responsible for overseeing the safety of our employees.
- Providing safety training to employees.
- Conducting periodic inspections of jobsites and reporting any hazard noted on the jobsite to management.
- Reviewing all inspections made by government inspectors to assure compliance and to keep management informed of these inspections
- Keeping abreast of new developments in OSHA and other federal, state and municipal regulations and publicize such information.

Project Managers

Project Managers are responsible for providing the personal knowledge, leadership and guidance necessary to ensure the implementation and compliance with this safety program. Project Managers safety responsibilities include the following:

- Reinforcing the M. G. Newell Corporation Safety Program with both words and actions by displaying a positive attitude and stressing the importance of a safe work environment to all.
- Reviewing safety inspection reports, accident reports, injury reports, supervisory safety reports, and other documentation to maintain a working knowledge of the safety activities on their jobsites.
- Ensuring that this safety program is carried through on their projects.
- Ensuring that subcontractors are provided with a copy of this program, if applicable.
- Promoting safety awareness at employee and subcontractor meetings.
- Requiring Site Managers to submit a handwritten report of any accident involving loss of time (loss of time is defined as any accident that requires the injured worker to be off work for a period of time excluding the day of occurrence). This handwritten report should be faxed to the Safety Coordinator in the Division office on the day of occurrence. The original should then be mailed to follow up.
- Evaluation of jobsite procedures to ensure compliance with this safety program.
- Approving expenditures required to ensure a safe working environment and corrections of any potential safety hazard.
- Conducting periodic inspections of the jobsite to ensure that the safety program is being properly enforced.
- An accident report should be forwarded to the corporate Safety Director.

Site Managers

When applicable, the Site Managers (superintendent or foreman) are the key persons in the day-to-day enforcement of the safety program and are empowered to implement additional safety rules they feel are needed for the protection of workers on their jobsite. It is their responsibility to ensure that the jobsite is maintained in a safe condition and that all safety rules are enforced. Site Managers have the authority and responsibility to remove any unsafe equipment or person from the jobsite. Site Managers safety responsibilities include the following:

- Reinforcing the M. G. Newell Corporation Safety Program with both words and actions by displaying a positive attitude and stressing the importance of a safe work environment to all.
- Carrying out instructions of Project Manager relating to the implementation of this safety program.
- Issuing a written notice to subcontractors of known safety violations that are observed on our jobsites (see Forms section).
- Conducting regular inspections of the jobsite to ensure that safety hazards have been removed or controlled.

- Ensuring that Safety Training Meetings are being conducted and documented. The Safety Meeting should cover the types of work and the potential hazards the employees are likely to face during the upcoming week, a review of any accidents or near misses that may have occurred during the past week (including the preventative action that has been taken to prevent a reoccurrence), and the review of a Material Safety Data Sheet. Employees should be encouraged to make safety suggestions during the Weekly Safety Meetings. Attendance to this meeting should be recorded by having each employee sign the reverse side of the Weekly Safety Meeting Sheet (see Forms section). Weekly Safety Meetings are most effective if held by the Site Manager, however, this duty may be delegated to the Jobsite Safety Inspector.
- Ensuring that accident investigations are performed. The Site Manager should require the appropriate foreman to immediately investigate all accidents to determine the cause. The primary goal of this investigation should be the prevention of a reoccurrence rather than fault finding or assessing blame.
- Submitting a handwritten report on all accidents involving loss of time from work (loss of time is defined as any accident that requires the injured worker to be off work for a period of time excluding the day of occurrence). This report should include all actions taken to prevent a reoccurrence.

Foremen

When applicable, the foremen will be directly in charge of the workers on the project. Their safety responsibilities include the following:

- Reinforcing the M. G. Newell Corporation Safety Program with both words and actions by displaying a positive attitude and stressing the importance of a safe work environment to all.
- Insisting on compliance with all applicable federal, state, and local rules and regulations.
- Ensuring that a competent person is present while work is being performed.
  Ensuring that work is stopped if unsafe condition arises.
- Determining what each worker needs to know to perform his/her job safely and instruct them accordingly.
- Ensuring that all equipment is maintained in safe condition and that personal protective equipment is used whenever necessary.
- Prohibiting the use of unsafe equipment.
- Ensuring that all injuries are promptly treated and reported to the Site Manager.
- In the event of an injury, ensuring that corrective actions have been taken to prevent a reoccurrence.
- Informing their crew on the safe working habits that are related to their day-to-day tasks and any hazards that they may encounter prior to starting a new task.

- Being responsible for housekeeping of the work area.
- Investigating all injuries and near misses and reporting them on the proper accident form to the Site Manager.

Employees

To accomplish our accident prevention goal, it is necessary that our employees become involved in this safety program by giving the program their total cooperation. Employee safety responsibilities include the following:

- Following all M. G. Newell Corporation safety rules (see Safety Rules).
- Do not take unnecessary chances and get proper instruction for working safely.
- When in doubt about his/her job or equipment to be used, request instructions from your Supervisor/Foreman.
- Complying with the M. G. Newell Corporation Substance Abuse Policy/Program

IV. GENERAL SAFETY RULES

The overall guide for safety rules on our projects will be the OSHA Standards for Construction (29CFR 1926). These rules are provided here for special emphasis.

1. All new employees and subcontractor's employees will be given a safety orientation by their supervisor before they start work. This orientation will apply to general safety rules. OSHA-Occupational Safety and Health Standards for the construction industry (29CFR 1926) will be followed for all rules.

2. Safety training meetings will be held each week at the time specified by the Job Superintendent. Attendance is mandatory. Meeting minutes will be recorded.

3. Parking for construction personnel will be provided on the site as marked. All construction personnel must park only in the designated area.

4. Lay down area for material or parking of equipment will be coordinated with the Job Superintendent.

5. Ten (10) miles per hour speed limit must be adhered to while on job site.

6. Sleeved shirts, long pants, and hard soled shoes will be required at all times in order to work on our projects. Other personal protective equipment may be required due to our customer's safety rules, or the site manager may require other equipment.

7. No employee will be allowed on site while under the influence of intoxicants or drugs. Anyone doing so will be discharged immediately and barred from the job site. (see substance abuse policy)

8. Signs and posters bearing pertinent regulations shall be used to convey warnings, directions and instruction to personnel and the public as required by the contractor, client and safety rules. All warning signs will be strictly adhered to by all personnel and visitors.

9. All personnel will familiarize themselves with fire extinguishers and first aid locations including identifying employees certified to provide first aid and CPR.

10. All injuries will be reported no matter how slight they may be. All subcontractors will forward a copy of the accident report to the Site Manager no later than the following day.

11. All unsafe practices and conditions will be reported immediately. If not corrected within a reasonable amount of time, please report to the Site Manager.

12. Rules which will be strictly enforced:
- No horseplay or scuffling.
- Guard rails and barricades will be erected and maintained.
- Floor openings will be covered as soon as opening occurs. Any Subcontractors removing an opening to perform their work must cover the opening when work is complete, or when the area is unattended.
- Only authorized and qualified person will operate equipment (i.e. saws, cranes, loaders, lifts, dozers, hoists, pumps, trucks, etc.). There will be NO riding on equipment by passengers unless they have a seat and a seatbelt. Exception: Employees may be transported on site in the bed of pickup trucks, as long as they are seated on the bed of the truck.

13. Safety is everyone's responsibility. If each worker will watch out for his fellow worker as well as himself, accidents will be held to a minimum. Remember — WORK SAFELY!

14. Maintaining good housekeeping and following safety practices will help us keep the quality level high for the Owner.

15. The following rules apply to housekeeping:
- Keep your work area clean at all times.
- Perform a general clean-up at the end of each day, putting trash in the designated compound area. All trash will be removed from The compound area and hauled off the job site each week.
- Glass containers will not be allowed on the job site.

16. The requirements of the Hazardous Chemical "Right to Know" laws will be strictly enforced.

17. The requirements of the Substance Abuse Program will be strictly enforced.

18. All employees agree to work safely and abide by all safety rules and regulations.

19. Radios and music equipment are not allowed on job sites.

V. EQUIPMENT INSPECTION AND MAINTENANCE

It is of the utmost importance that proper equipment inspection and maintenance programs be conducted on the project to reduce accident exposure.

Inspection and Maintenance Guidelines

1. Planned preventive maintenance and service on equipment shall be performed in accordance with programs and at scheduled intervals.
2. Equipment found to have defects in any critical area which could affect the safe operation of the equipment shall be tagged accordingly and taken out of service until proper repairs have been made.
3. Equipment shall be periodically cleaned to prevent the accumulation of oil, grease, dirt, etc.
4. Maintain records of inspection - use forms provided by manufacturer.
5. Use systems for locking out and tagging equipment that is undergoing maintenance.
6. Require safety equipment and components be maintained in an operative condition (i.e. low air warning devices, back-up alarms, brakes, mirrors, boom stops, etc.). Equipment system safety devices shall not be bypassed or blocked off.
7. Operator complaints on equipment condition shall be investigated and necessary corrective action taken.
8. All hoisting equipment shall be inspected daily and annually. Copies of the inspections shall be maintained in the equipment cab.

VI. COMPANY FLEET SAFETY RULES

This section is an overview of safety rules and policies that apply to the operation of all company cars, trucks, and personally owned vehicles that are used for company business.

1. No company vehicles or equipment will be loaned to anyone including employees of M. G. Newell Corporation without the personal approval of Management.
2. Only M. G. Newell Corporation employees and other authorized personnel will operate company vehicles and/or equipment.
3. Employees operating company vehicles must have a valid driver's license.
4. The driver is responsible for the safety of passengers and cargo stability.
5. Seat belts will be worn at all times.
6. Obey all speed limits and other traffic signs.
7. Motor must be shut off during refueling.
8. Personnel may not ride in the bed of any truck.
9. A flagman should direct the backing of large vehicles in a congested area.
10. Motor Vehicle Records will be checked on all drivers of company vehicles on an annual basis.
11. Any motor vehicle moving violations such as a speeding fine will be at the expense of said violator.
12. Texting or typing email while driving is strictly prohibited.

VII. FIRE PREVENTION AND CONTROL

A well-planned program of organization and control will drastically reduce the exposure and probability of a fire loss. Proper layout and control of fuel storage areas, parts and material storage, welding areas, burning and disposal areas, etc., is necessary.

Potential losses from fire include damage or total destruction of temporary construction facilities, building materials, equipment and supplies, permanent construction, public property, and human lives. Heavy costs have been incurred when adequate measures for fire prevention and control were not established and maintained. All fire damage, no matter how slight, shall be reported to management immediately.

Fire extinguishers will be located on all projects. Fire extinguishers rated at least 4A60BC will be located on all floors near the entrance or stairway. Additional extinguishers will be installed if travel distance from any extinguisher exceeds 75 feet. Site managers will inspect fire extinguishers monthly and record the inspection results. A service provider will be used to annually maintain the extinguishers.

Fire protection during hot work operations will be covered in our Hot Work Policy, which is an addendum to this program.

Employees will be trained in the proper operation of a fire extinguisher as part of their new hire orientation and at least one safety training meeting per year will be dedicated to fire hazards and extinguisher use.

1. Hazards
    a. Temporary and permanent heating devices.
    b. Electrical wiring and equipment.
    c. Volatile liquids and gas storage.
    d. Fueling operations.
    e. Handling flammable roofing compounds.
    f. Burning refuse.
    g. Poor housekeeping.
    h. Welding and burning.
    i. Spilled grease and oils.
    j. Spontaneous combustion.
    k. Explosives, gases and dust.
    l. Storage of flammable materials.
    m. Job site trailers
    n. Outside fuel tanks
2. Methods of Prevention
    a. Stack combustible and noncombustible materials alternately in storage areas.
    b. Separate temporary structures.
    c. Isolate shops, flammable liquids, and gas storage filling stations. Dike around fuel storage tanks.
    d. Use only approved safety cans that meet OSHA requirements.

e. Do not store gas in work areas. Only the amount of oils and grease needed for current work on hand should be kept in the work area.

f. Do not use gasoline as a cleaning agent.

g. Store oxygen, acetylene, and LP gas cylinders 20 feet apart. Cylinders not in use shall have protective caps installed, and all cylinders, whether empty or full, shall be secured in an upright position.

h. Use approved three wire extension cords.

VIII. FIT FOR DUTY

This section is an overview of the programs and guidelines to ensure all associates are able to perform the essential tasks of his or her work assignments in a manner that does not impede the safety or health of oneself, co-workers, property, and the public at large.

1. Management will continue to emphasize through the Company's Orientation Program and annual Safety Awareness training that we expect all associates to be physically capable of performing their job functions. We will continue to encourage immediate reporting to our supervisory team if, at any time, an associate feels that they cannot perform their work assignments safely due to reasons such as tiredness, weariness, over-the-counter Rx, etc. Based on the circumstances known, the Company will take appropriate action such as, but not limited to, medical attention, revising work hours and breaks, job rotations, ergonomic adjustments to equipment, removal from the work site, etc. The Company will periodically analyze various work tasks and associate behaviors, and take appropriate actions to minimize any issue impeding safety and/or the well-being of the associate.

2. The Company will adhere to its Substance Abuse Policy identified in Chapter 17 of the Safety Manual and/or the Substance Abuse policy requirements of the Host facility.

IX. Short Service Associate

Associates are classified according to the type of employment, depending upon the number of hours they are regularly scheduled to work, and the type of position they are to fill. A new associate or "Short Service Associate", is hired initially on a 90 day orientation basis. Upon satisfactory completion of the orientation period, a short service associate becomes eligible for Regular Associate status. During the 90 day orientation program, a short service associate may not work alone. The short service associate's supervisor will insure that the Host facility is aware of the short service associate, as well as ensure that he/she is monitored for compliance with all HSE polices. If acceptable to the Host facility, the short service associate will have an identification such as badge, different color hard hat, etc. The short service associate will be mentored by their supervisor and/or an experienced associate. The above program definitions relating to identification, safety adherence, monitoring, and notification to the Host will apply to all M G Newell subcontractors.

INCIDENT INVESTIGATION REPORT

The purpose of this report is to help prevent similar incidents from recurring, not to place blame. Make this report as accurate and thorough as possible. Remember, always follow-up with the appropriate corrective action(s).

Incident: ☐ Near Miss ☐ Injury ☐ Vehicle ☐ Property ☐ Other

First Aid Administered? ☐ Yes ☐ No By Whom? _____

Incident Date: _____ **Time:** _____ **AM / PM**

Employee: _____

Location/Department: _____

Occupation: _____ Months on this job: _____

Supervisor: _____

Where did the incident occur? _____

_____

How did the accident occur? (What was the employee doing when injured?) ___

_____

_____

_____

Describe the injuries or damage _____

_____

_____

Were there any witnesses to this incident? If yes, have statements been obtained from those witnesses?

☐ Yes ☐ No

ANALYSIS AND ACTIONS TAKEN

Causes and contributing factors: _____

_____

_____

_____

Corrective action(s) suggested: _____

_____

_____

_____

_____

_____

Corrective action(s) taken and date: _____

_____

_____

_____

_____

_____

Investigation Conducted by: _____ Date: _____

Report Reviewed by: _____ Date: _____

M. G. NEWELL CORPORATION.
SUPERVISORS WRITTEN NOTICE TO SUBCONTRACTOR OF KNOWN SAFETY VIOLATIONS

CONTRACTOR'S NAME:_____ DATE:_____

ADDRESS:_____

JOB NAME:_____ JOB #:_____

M. G. Newell Corporation. expects all contractors/subcontractors to comply with O.S.H.A. safety regulations. This is your notice that our supervisor finds the following items to be unsafe and needing immediate attention:

_____

_____

_____

The above list is not necessarily complete and you should make an immediate inspection for other items needing correction. It is your responsibility to comply with all federal, state, and local safety and health regulations applicable to this construction project. Our company disclaims any responsibility for said Contractor/Subcontractor.

Please help us make this a safe place to work.

_____
Job Supervisor

INSTRUCTIONS: This form is to be filled out with the following disposition:

1. Original given to foreman or superintendent representing named contractor. A response must be provided within 24 hours.
2. Mail one copy to home office of contractor.
3. File one copy at the office in properly identified file.

Contractors Response/Corrective Action

_____

_____

_____
Contractor's Representative

M. G. NEWELL CORPORATION
SUPERVISORS ACCIDENT INVESTIGATION

INJURED_____ JOB #_____ JOB_____

INJURY DATE_____ TIME_____ AGE_____ SS#_____

OCCUPATION_____ MARRIED_____

DATE EMPLOYED_____

DESCRIPTION OF ACCIDENT (include nature of injury and material damage, if any):

_____

_____

WITNESSES_____

TIME INJURED LEFT WORK_____ TIME & DATE RETURNED_____

DESCRIBE ANY UNSAFE ACTS OR CONDITIONS_____

_____

WHAT CAN BE DONE TO PREVENT SIMILAR ACCIDENTS (must be filled out):

_____

MEDICAL FACILITY USED_____

_____ _____

Supervisor's signature Date

****

I was offered medical treatment but elected not to accept it.

_____ _____

Employee's signature Witness signature

M. G. NEWELL CORPORATION
JOBSITE SAFETY CHECKLIST

Supervisor_____Date_____
MARK √ FOR NO CORRECTION NEEDED;" NA " FOR NOT APPLICABLE; AND " C " FOR CORRECTION NEEDED.

_____1. ARE WALKWAYS AND JOB SECURITY ADEQUATE?

_____2. ARE LADDERS PROPERLY CONSTRUCTED AND SECURED?

_____3. IS HOUSEKEEPING GOOD, ALL UNNECESSARY DEBRIS CLEANED UP?

_____4. ARE GUARD RAILS ERECTED AROUND HOLES AND OTHER CRITICAL AREAS? PERIMETER PROTECTION IN PLACE?

_____5. IS ILLUMINATION ADEQUATE?

_____6. ARE HARD HATS AND OTHER PERSONAL PROTECTIVE EQUIPMENT WORN BY OUR WORKERS AND SUBS?

_____7. ARE CRANES AND HOISTS PROPERLY MAINTAINED AND SAFEGUARDED? HAS TODAY'S MATERIAL HANDLING BEEN PROPERLY PLANNED?

_____8. ARE ALL ELECTRICAL TOOLS GUARDED AND GROUNDED?

_____9. IS JOB TRAFFIC PLAN WORKING, INCLUDING WORKSITE TRAFFIC CONTROL PLAN?

_____10. ARE WORKERS EXPOSED TO TRAFFIC WEARING APPROPRIATE REFLECTIVE VESTS?

_____11. ARE FIRST AID SUPPLIES ADEQUATE? FIRST AIDERS AVAILABLE?

_____12. ARE FIRE HAZARDS CONTROLLED?

_____13. ARE FALL HAZARDS IN LIFTS BEING PROPERLY CONTROLLED?

_____14. ARE WORKERS PROTECTED FROM FALLING OBJECTS?

_____15. ARE HAZARDOUS MATERIALS BEING SAFELY HANDLED?

DESCRIPTIONS OF “C” ITEMS

_____

_____

OTHER UNSAFE ACTS/CONDITIONS NOTED?_____

SUPERVISOR_____

M. G. NEWELL CORPORATION
SAFETY ORIENTATION OUTLINE

1. Provide new employee a copy of employee safety manual. Use the manual as the outline for the orientation.

2. Review requirements for clothing and personal protective equipment. (hard hats, safety glasses, hard sole shoes, gloves, etc.).

3. Discuss weekly safety meetings and the need to attend and participate.

4. Inform new employee of the requirement to report all accidents and near misses, no matter how minor to their supervisor. Tell them where first aid can be obtained.

5. Discuss the employee's responsibility to ensure that all tools and equipment must be in good, safe working order before they are used. Unsafe equipment shall be reported to their supervisor.

6. Drug & Alcohol Policy: Discuss policy (allow them to read it) and stress that they will be subject to drug testing on this jobsite. Have them sign Acknowledgment form which indicates that they have been informed of the Policy.

7. Fall Protection: Stress the need for and proper techniques for fall protection. Stress that some type of fall protection must be utilized when working within 6' of any edge that could result in a fall of 6' or more. This includes floor holes through which employees could fall.

8. Electrical Safety: All electrical circuits must be grounded and protected by GFCIs. Electrical tools must be inspected before use.

9. Confined Spaces: Discuss hazards of confined spaces and stress that no employees enter confined spaces without formal training.

10. Right-to-Know Law: Explain the "Right to Know" law and how it is being implemented on this jobsite. Use the "Right to Know" training outline and have them complete and sign the "Right to Know" worksheet.

11. Finish orientation by summarizing the company's dedication to safety and urging them to discuss any safety problems he observes with their supervisor. Ask key questions concerning the safety rules to ensure that he has absorbed the material covered.

12. Have new employee complete the safety orientation worksheet.

M. G. NEWELL CORPORATION
SAFETY ORIENTATION WORKSHEET

Name:_____

Date:_____

1. How often will safety meetings be held and where? _____
2. Is attendance at safety meetings required? _____
3. To whom do you report accidents? _____
4. Should near-misses be reported? _____
5. Where are first aid facilities located? _____
6. What personal protective equipment must be worn <u>at</u> <u>all</u> <u>times</u> on this project?

   _____

7. When can you enter a confined space?

   _____

8. What is the company's policy concerning the use of alcohol and illegal drugs on the job?

   _____

9. The proper vertical to horizontal ratio for erecting a ladder is: _____
10. Where can fire extinguishers be found on this project? _____
11. What is the maximum depth of excavation that a person can be in without the sides being sloped back or stepped back? _____
12. What happens when wet concrete is left on your unprotected skin? _____

    _____

M. G. NEWELL CORPORATION
Training Outline
Right-to-Know/Hazcom Law

HAZARDOUS CHEMICAL

Any chemical which poses a threat to your body.

COMPLIANCE

Any company which uses hazardous chemicals must comply with the Right-to-Know Law.

FIVE CATEGORIES OF RIGHT TO KNOW LAW

1. Hazard Evaluation
2. Written Program
3. Labels and Warning Signs
4. Collect Material Safety Data Sheets
5. Conduct Employee Training

TYPES OF HAZARDS

1. Physical Hazard: Flammable, Combustible, Explosive
   (Occurs outside the body)
2. Health Hazard: Skin irritation, Carcinogens, Toxic
   (Occurs inside the body)

TYPES OF HEALTH HAZARDS

1. Acute: immediate reaction
2. Chronic: may take years to show symptoms

METHODS OF ENTRY TO THE BODY BY TOXIC CHEMICALS

1. Inhalation: breathing in vapors or fumes
2. Absorption: getting material on skin or in eyes
3. Ingestion: eating or drinking the material

MATERIAL SAFETY DATA SHEETS

A Material Safety Data Sheet (MSDS) is printed material concerning the hazards of a product.
MSDS's for all hazardous chemicals used on the job must be reviewed.
MSDS's must be kept on the jobsite.(GC'S jobsite trailer)

FIRST AID

Inhalation exposure: Fresh Air
Absorption exposure: Fresh Water

M. G. NEWELL CORPORATION
RIGHT-TO-KNOW/HAZCOM
WORKSHEET

NAME_____ DATE_____

1. What companies are required to comply with the Right-to-Know Law?

_____

2. What is a hazardous chemical?

_____

3. What is a Material Safety Data Sheet and where will they be kept?

_____

_____

4. What are three ways a chemical can enter your body?

_____

_____

_____

5. What is the most common first aid for overexposure to hazardous chemicals?

_____

6. What hazardous chemicals are you exposed to and how can you determine overexposure?

_____

_____

_____

SAFETY TRAINING MEETING
AGENDA/MINUTES

1. REVIEW RECENT ACCIDENTS AND NEAR MISSES AND DISCUSS CAUSES AND PREVENTION:

_____
_____

2. TOPICS FOR THIS MEETING:

_____
_____
_____
_____

3. REVIEW HAZCOM DATA ON CHEMICALS THAT WILL BE BROUGHT ON THE JOB THIS WEEK:_____
_____
_____

4. REVIEW SAFETY INSPECTIONS AND OBSERVATIONS:

_____
_____
_____
_____
_____

5. SOLICIT SAFETY SUGGESTIONS:

_____
_____
_____
_____
_____

6. ENSURE THAT ALL ATTENDEES SIGN ATTENDANCE ROSTER

TRAINING CONDUCTED BY:_____ **DATE:**_____

Purpose

This program is designed to ensure that all employees are provided with the information and training that they need to work safety with the chemicals and materials that will be used on our projects.

Scope

Applies to all M. G. Newell Corporation employees. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Procedure

This program is designed to meet the requirements of the "Federal Hazard Communication" Standard. Outlined in the program are the steps that this company will follow in meeting the training and informational requirements of the law. This program will provide employees with all the information they need to safely perform their jobs. If any additional information is needed, employees are encouraged to request the information through their supervisors.

Our Safety Officer has been assigned the responsibility of insuring that the provisions of the Hazardous Chemical Right to Know Law have been complied with, and any questions concerning this program should be directed to him.

A. Administrator and Designated Trainers
The administrator of this program will be our Safety Officer. The Site Manager will oversee both the initial training and our ongoing training program. A roster of the employees trained under this program will be kept in our division offices. Training of new employees will be conducted by their supervisor.

B. Annual Refresher Training
Our company will annually dedicate a safety meeting to the subject of hazardous materials. During this meeting, the SDS on all hazardous materials regularly used by our employees will be discussed. In addition, proper handling procedures, container labeling, and first aid procedures will be reviewed. Prior to this meeting, the Hazardous Chemical List will be reviewed and updated as needed.

C. Hazard Determination Program
The administrator of the program will develop and maintain a list of the hazardous chemicals used by this company. The list will be edited for each project to ensure that an accurate list is available for each project. The administrator will use the list to acquire necessary information about each chemical (SDS) and determine if it is hazardous.

Person responsible for program: Safety Officer
Person assigned to hazardous chemical evaluation: Safety Officer

Chemicals used or produced in this company will be evaluated by the following program to determine if they are hazardous or not:

For Chemicals Used:

Safety Data Sheets (SDS) are used to evaluate whether or not supplied chemicals are hazardous. Chemicals which are health hazards will be designated as such by having ingredients that are listed in the hazardous ingredients section.

For Chemicals Produced: (such as intermediate products, welding fumes, carbon monoxide and wood dust)
SDS's or equivalents are obtained from the chemical manufacturer or from the local Department of Labor. Chemicals for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water reactive are considered hazardous, and defined as physical hazards.

Additional Information:
Chemicals found in the following publications will automatically be considered as health hazards:

1. 29 CFR 1910, Subpart Z, "Toxic and Hazardous Substances", (OSHA);
2. "Threshold Limit Values and Biological Exposure Indices", latest edition), American Conference of Governmental Industrial Hygienists (ACGIH); and, for chemicals that are carcinogens or potential carcinogens;
3. a. National Toxicology Program (NTP), "Annual Report on Carcinogens", (latest edition);
   b. International Agency for Research on Cancer (IARC), "Monographs", (latest edition);
   c. 29 CFR 1910, Subpart Z, "Toxic and Hazardous Substances", Occupational Safety and Health Administration.

D. Location of Safety Data Sheets
SDS's will be kept in an open file located in the main office and/or jobsite trailer. Supervisors will also carry a copy of the SDS's in their truck. Employees are encouraged to review these sheets as often as they feel necessary. Anyone wishing to copy a SDS for their own use is encouraged to do so, but the original must not be removed from the file.

E. Warning Labels
Containers that have hazardous chemicals inside will be marked with warning labels. Since we do not produce or re-package any hazardous chemicals, our responsibilities are limited to insuring that hazardous chemicals are properly labeled when they arrive. Improperly marked containers will not be accepted. At all times, we will insure that labels and other forms of warning are not defaced or removed. This applies to incoming containers of hazardous chemicals as well as containers already in-house.

F. Location of Employee Rights Poster
A poster that outlines employee rights under this law will be posted on the employee bulletin board. Employees who have any questions that cannot be answered by the supervisor will be directed to our office.

G. Training of New Employees?
Any new employee will be thoroughly trained in the elements of the "Right to Know Law" prior to entering a workplace where he may be exposed to hazardous materials. This training will be done by their supervisor and consist of reviewing the elements of the law and pertinent parts of the Safety Data Sheets in the "Right to Know" file. Particular emphasis will be placed on employee recall. The training outline contained in Section III will be used as a guide to insure the quality of this training. Workers will fill out the Hazard Communication worksheet as they undergo training.

H. Methods Used to Inform Employees of the Hazards of Non-Routine Tasks
Employees involved in non-routine tasks (such as tank cleaning and maintenance) will be informed of the hazards involved, and trained at specific training sessions so as to insure awareness of required information.

I. Methods Used to Inform Contractor/Subcontractor Employers
Subcontractors who may be exposed to hazardous chemicals will be informed both verbally and by means of an information sheet, as to hazards involved at a meeting before any work is accomplished. M. G. Newell Corporation will maintain a master list of chemicals on the site in the project office. We will also maintain a master file of SDS for those chemicals.

J. Hazards of Unlabeled Piping
If work must be done on unlabeled piping the contents of that piping must be identified and communicated to the workers that will be performing the work. Under no circumstances will unlabeled piping be opened by non-qualified or non-trained workers.

TRAINING OUTLINE

Introduction
The concept of the Hazard Communication Program was born in 1974 when the Standards Advisory Committee was formed to develop guidelines to implement Section 6 (B) 7 of the Occupational Safety and Health Act. This rule became law in 1984 and became known as 29 CFR Section 1910.1200. This law was designed to provide employees with the training necessary to safely deal with hazardous chemicals in the workplace. Its original intent was to provide information to employees in SIC Codes 20-39 which are manufacturing industries which use large quantities of hazardous materials. The scope has since been expanded to include all companies.

I. Basic Elements of the Right to Know Program

A. The Program is directed at two general groups: chemical manufacturers and chemical users.
B. There are five basic categories of the federal law. They are:
1. Evaluate chemical hazards.
2. Affix warning labels.
3. Provide Safety Data Sheets
4. Conduct chemical handling training.
5. Develop a written program.

C. A detailed explanation of each of these requirements is as follows:
1. Evaluate chemical hazards.
Each employer is required to inventory all of the materials used by his employees and determine if they are hazardous materials and should fall under this program. Any chemicals listed by the following sources are directly applicable to the Hazard Communication Standard.
a. Occupational Safety and Health Administration
b. American Conference of Governmental Industrial Hygienists (ACGIH)
c. National Toxicology Program
d. International Agency for Research on Cancer

The materials covered by this program are any materials that constitute a physical, toxicological or carcinogenic hazard to the worker.

2. Affix warning labels.
Manufacturers of hazardous materials are required to label all shipping containers holding their products. These labels must be on the box holding individual containers and on the individual containers. The labels may show the chemical name or its common name designation, and the label must contain a warning describing the primary health and physical hazards of the chemical. As an end user who does not manufacture or re-package hazardous chemicals, our responsibilities are limited to insuring that proper warning labels are on all hazardous chemical containers when they arrive at our office. Shipments of hazardous chemicals that arrive without proper warning labels will not be accepted.

3. Provide Safety Data Sheets (SDS).
SDS's must be obtained on all hazardous materials falling under the program. These sheets must be kept in a file that is accessible by all employees. These sheets contain the information that is necessary to determine the hazards involved with working with these chemicals. In addition, these sheets outline the protective measures that must be taken to prevent exposure to the chemicals and first aid procedures that should be implemented if an employee becomes exposed. The location of these sheets will be outlined in the written program.

Manufacturers of these materials are required to provide the consumer with Safety Data Sheets. If these sheets are not provided with the first shipment, they can be requested from the manufacturer.

4. Conduct chemical handling training. Employee training sessions must highlight the following five areas:
   a. Review the purpose of the Hazard Communication Standard.
   b. Describe the Safety Data Sheet's use and cataloging system.
   c. Review the hazards of the chemicals used by employees.
   d. Describe the safety measures for controlling the hazard.
   e. Summarize the particular hazardous materials used by the employer.

Training is required for all employees who are exposed to hazardous chemicals in the workplace. The Right to Know Law is a performance-oriented standard, meaning that the effectiveness of the program will be evaluated by how well the employees have been informed about the hazardous work environment.

II. Review of Hazardous Materials

The Safety Data Sheets of all the hazardous materials used in this company will be reviewed one by one with the important points being explained to the employees. The most important points on the SDS are the following items:

1. The nature of the hazard that the chemical presents, i.e. flammable, carcinogenic, reactive, etc.
2. Method of entry into the body, i.e. inhalation, absorption, or ingestion.
3. Protective measures needed to prevent overexposure.
4. First aid to be implemented if overexposure occurs.

Process Hazard-Anhydrous Ammonia Awareness Program

Introduction

M.G. Newell Corporation may perform work in customer facilities and/or on a customer's property that could contain Anhydrous Ammonia greater than 10,000 lbs. As a result the following "Ammonia Awareness Program" has been developed to inform our associates and subcontractors of the health and fire hazards related to their work on PSM covered processes.

Program Elements

M.G. Newell will train each associate and insure all subcontractors have been trained on (a) Health and Fire Hazards; (b) Safe Work Practices; (c) Emergence Actions. We will also verify that each associate and subcontractor assigned to a PSM covered area understands the training via a review/test, and document such.

PSM Covered Areas

Any area in the facility with equipment containing ammonia for example, machine rooms (compressors), roof (condensers and piping), ceilings (ammonia piping), and/or outside areas (ammonia receiving manifolds).

Process Hazard Awareness

NFPA Ratings for Ammonia include (a) Flameability-1; (b) Health Hazards-3; (c) Reactivity-0. The primary hazard is its toxicity as it causes severe irritation of the respiratory tract. Ammonia has no Flash Point. Flammability limits are 16% to 25% ammonia vapor to air. Please reference the customer's SDS after a brief overview of the hazardous nature. Overview should include Emergency Actions, General Fire Prevention, Sources of Ignition, Toxicity of Ammonia, Reactivity of Ammonia and Access Control.

Characteristics of Anhydrous Ammonia are colorless and has a suffocating, pungent odor. It can cause harm if inhaled and/or if it comes into contact with the eyes or skin, is toxic as it causes severe irritation of the respiratory tract if inhaled. If one comes in contact with Anhydrous Ammonia, potential health effects are severe burning of the eyes, temporary blindness, coughing, chest pain, etc.

M. G. Newell associates and all subcontractors will use impervious clothing, gloves and/or face shields if there is a possibility of skin contact with liquid ammonia or vessels containing liquid Anhydrous Ammonia.

Purpose

This program is designed to provide supervisors with a program to equitably administer disciplinary action to employees that violate company rules

Scope

Applies to all M. G. Newell Corporation employees. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

M. G. Newell Corporation disciplinary policy for behavior problems, (i.e. excessive absenteeism, tardiness, safety violations) is as follows:

1) Verbal warning, with follow up
2) Written warning, with follow up
3) Final Written warning, with follow up
4) Termination

Disciplinary Action for Gross Misconduct may be termination. All areas of gross misconduct cannot be listed in this policy, but some examples are as follows:

1) Violation of safety policies that could result in serious injury or property damage
2) Theft
3) Deliberate damage to or misuse of property belonging to M. G. Newell Corporation
4) Fraud, falsifying records
5) Working/driving under the influence of alcohol or illegal drugs
6) Fighting or physical assault
7) Threatening behavior
8) Insubordination
9) Conduct endangering any person
10) Gross negligence causing damage, loss or injury
11) Breach of data protection, e.g. unauthorized access to computer or manual records
12) Harassment or bullying of any type

The form on the next page of this program will be used to document our progressive discipline program.

DISCIPLINE FORM

Violations of company and safety polices will not be tolerated. Failure to comply with stated policies and procedures would subject the employee to disciplinary procedures. The following are guidelines only for disciplinary action, if the offense is of a serious enough nature immediate termination of employment may take place:

1st Offense:	**Verbal warning, with follow up**
2nd Offense:	**Written warning, with follow up**
3rd Offense:	**Final Written warning, with follow up**
4th Offense:	**Termination**

Employee Name: _____

Employee's Position: _____

Job Site: _____

Date of Infraction: _____

Describe the action that has caused this counseling and your correction taken. Include date by which improvement is expected:

_____
_____
_____
_____
_____
_____
_____
_____

Employee's Signature: _____
(Note if employee refuses to sign)

Supervisors Signature: _____

Distribution:

Employee's jobsite file
Main office personnel file
Employee

Purpose

The purpose of this program is to establish procedures that will eliminate fall accidents on our projects.

Scope

This program applies to all M. G. Newell Corporation employees who supervise or work at elevations in the scope of their job duties and assignments. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent. Fall protection procedures will be implemented whenever employees are exposed to a fall hazard of six feet or more.

Definitions

"Anchorage" means a secure point of attachment for lifelines, lanyards or deceleration devices.

"Body belt (safety belt)" means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

"Body harness" means straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

"Buckle" means any device for holding the body belt or body harness closed around the employee's body.

"Connector (1)" means a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabiner, or it may be an integral component of part of the system (such as a buckle or dee-ring sewn into a body belt or body harness, or a snap-hook spliced or sewn to a lanyard or self-retracting lanyard).

"Connector (2)" means an employee who, working with hoisting equipment, is placing and connecting structural members and/or components.

"Controlled access zone (CAZ)" means an area in which certain work (e.g., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

"Dangerous equipment" means equipment (such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units) which, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

"Deceleration device" means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

"Deceleration distance" means the additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body belt or body harness attachment point at the moment of activation (at the onset of fall arrest forces) of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.

"Equivalent" means alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

"Failure" means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

"Free fall" means the act of falling before a personal fall arrest system begins to apply force to arrest the fall.

"Free fall distance" means the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

"Guardrail system" means a barrier erected to prevent employees from falling to lower levels.

"Hole" means a gap or void 2 inches (5.1 cm) or more in its least dimension, in a floor, roof, or other walking/working surface.

"Infeasible" means that it is impossible to perform the construction work using a conventional fall protection system (i.e., guardrail system, safety net system, or personal fall arrest system) or that it is technologically impossible to use any one of these systems to provide fall protection.

"Lanyard" means a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

"Leading edge" means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

"Lifeline" means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

"Low-slope roof" means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

"Lower levels" means those areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

"Mechanical equipment" means all motor or human propelled wheeled equipment used for roofing work, except wheelbarrows and mop carts.

"Opening" means a gap or void 30 inches (76 cm) or more high and 18 inches (48 cm) or more wide, in a wall or partition, through which employees can fall to a lower level.

"Overhand bricklaying and related work" means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. Related work includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

"Personal fall arrest system" means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

"Positioning device system" means a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

"Rope grab" means a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

"Roof" means the exterior surface on the top of a building. This does not include floors or formwork which, because a building has not been completed, temporarily become the top surface of a building.

"Roofing work" means the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

"Safety-monitoring system" means a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

"Self-retracting lifeline/lanyard" means a deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

"Snaphook" means a connector comprised of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snaphooks are generally one of two types:

(1) The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or

(2) The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snaphook as part of personal fall arrest systems and positioning device systems is prohibited.

"Steep roof" means a roof having a slope greater than 4 in 12 (vertical to horizontal).

"Toeboard" means a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

"Unprotected sides and edges" means any side or edge (except at entrances to points of access) of a walking/working surface, e.g., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches (1.0 m) high.

"Walking/working surface" means any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

"Warning line system" means a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

"Work area" means that portion of a walking/working surface where job duties are being performed.

Key Responsibilities

Project Manager/Site Supervisor

- Shall ensure that a trained competent person is assigned to each fall hazard.
- Shall ensure that all employees that are exposed to fall hazards are properly trained in the recognition and avoidance of fall hazards and the protective systems that M. G. Newell Corporation will utilize.
- Shall ensure that a site specific fall protection plan has been developed for each project.

Employees

- Shall be current on applicable training.
- Shall never expose themselves to a fall hazard without appropriate fall protection systems being in place.

Procedure

Fall protection shall be provided by one of the following systems allowed by OSHA Standards. The competent person shall select the system that provided maximum protection to our employees.

1. **"Guardrail systems."** Guardrail systems and their use shall comply with the following provisions:
   (a) Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches (1.1 m) plus or minus 3 inches (8 cm) above the walking/working level. When conditions warrant, the height of the top edge may exceed the 45-inch height, provided the guardrail system meets all other criteria of this paragraph.
   Note: When employees are using stilts, the top edge height of the top rail, or equivalent member, shall be increased an amount equal to the height of the stilts.
   (b) Midrails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members shall be installed between the top edge of the guardrail system and the walking/working surface when there is no wall or parapet wall at least 21 inches (53 cm) high.
      (i) Midrails, when used, shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.
      (ii) Screens and mesh, when used, shall extend from the top rail to the walking/working level and along the entire opening between top rail supports.
      (iii) Intermediate members (such as balusters), when used between posts, shall be not more than 19 inches (48 cm) apart.
      (iv) Other structural members (such as additional midrails and architectural panels) shall be installed such that there are no openings in the guardrail system that are more than 19 inches (.5 m) wide.
   (c) Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds (890 N) applied within 2 inches (5.1 cm) of the top edge, in any outward or downward direction, at any point along the top edge.
   (d) When the 200 pound (890 N) test load specified in paragraph (b)(3) of this section is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches (1.0 m) above the walking/working level. Guardrail system components selected and constructed in accordance with the Appendix B to subpart M of this part will be deemed to meet this requirement.
   (e) Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds (666 N) applied in any downward or outward direction at any point along the midrail or other member.
   (f) Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
   (g) The ends of all top rails and midrails shall not overhang the terminal posts, except where such overhang does not constitute a projection hazard.
   (h) Steel banding and plastic banding shall not be used as top rails or midrails.
   (i) Top rails and midrails shall be at least one-quarter inch (0.6 cm) nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.
   (j) When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place.
   (k) When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.

(l) When guardrail systems are used around holes used for the passage of materials, the hole shall have not more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.

(m) When guardrail systems are used around holes which are used as points of access (such as ladderways), they shall be provided with a gate, or be so offset that a person cannot walk directly into the hole.

(n) Guardrail systems used on ramps and runways shall be erected along each unprotected side or edge.

(o) Manila, plastic or synthetic rope being used for top rails or midrails shall be inspected as frequently as necessary to ensure that it continues to meet the strength requirements of paragraph (b)(3) of this section.

2. **"Safety net systems."** Safety net systems and their use shall comply with the following provisions:

(a) Safety nets shall be installed as close as practicable under the walking/working surface on which employees are working, but in no case more than 30 feet (9.1 m) below such level. When nets are used on bridges, the potential fall area from the walking/working surface to the net shall be unobstructed.

(b) Safety nets shall extend outward from the outermost projection of the work surface as follows:

Vertical distance from working surface	Minimum required horizontal distance of outer edge of net from the edge of the working surface
Up to 5 feet	8 feet.
More than 5 feet up to 10 feet	10 feet.
More than 10 feet	13 feet.

(c) Safety nets shall be installed with sufficient clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test specified in paragraph (c)(4) of this section.

(d) Safety nets and their installations shall be capable of absorbing an impact force equal to that produced by the drop test specified in paragraph (c)(4)(i) of this section.

(i) Except as provided in paragraph (c)(4)(ii) of this section, safety nets and safety net installations shall be drop-tested at the jobsite after initial installation and before being used as a fall protection system, whenever relocated, after major repair, and at 6-month intervals if left in one place. The drop-test shall consist of a 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level.

(ii) When the employer can demonstrate that it is unreasonable to perform the drop-test required by paragraph (c)(4)(i) of this section, the employer (or a designated competent person) shall certify that the net and net installation is in compliance with the provisions of paragraphs (c)(3) and (c)(4)(i) of this section by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with paragraph (c)(3) of this section and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the jobsite for inspection.

(e) Defective nets shall not be used. Safety nets shall be inspected at least once a week for wear, damage, and other deterioration. Defective components shall be removed from service. Safety nets shall also be inspected after any occurrence which could affect the integrity of the safety net system.

(f) Materials, scrap pieces, equipment, and tools which have fallen into the safety net shall be removed as soon as possible from the net and at least before the next work shift.

(g) The maximum size of each safety net mesh opening shall not exceed 36 square inches (230 cm) nor be longer than 6 inches (15 cm) on any side, and the opening, measured center-to-center of mesh ropes or webbing, shall not be longer than 6 inches (15 cm). All mesh crossings shall be secured to prevent enlargement of the mesh opening.

(h) Each safety net (or section of it) shall have a border rope for webbing with a minimum breaking strength of 5,000 pounds (22.2 kN).

(i) Connections between safety net panels shall be as strong as integral net components and shall be spaced not more than 6 inches (15 cm) apart.

3. "**Personal fall arrest systems**" Personal fall arrest systems and their use shall comply with the provisions set forth below. Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. Note: The use of a body belt in a positioning device system is acceptable and is regulated under paragraph 1926.502 (e) of the standard.

(a) Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials.

(b) Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

(c) Dee-rings and snaphooks shall have a minimum tensile strength of 5,000 pounds (22.2 kN).

(d) Dee-rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds (16 kN) without cracking, breaking, or taking permanent deformation.

(e) Snaphooks shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snaphook by depression of the snaphook keeper by the connected member, or shall be a locking type snaphook designed and used to prevent disengagement of the snaphook by the contact of the snaphook keeper by the connected member. Only locking type snaphooks shall be used.

(f) Unless the snaphook is a locking type and designed for the following connections, snaphooks shall not be engaged:

(i) directly to webbing, rope or wire rope;

(ii) to each other;

(iii) to a dee-ring to which another snaphook or other connector is attached;

(iv) to a horizontal lifeline; or

(g) to any object which is incompatibly shaped or dimensioned in relation to the snaphook such that unintentional disengagement could occur by the connected object being able to depress the snaphook keeper and release itself.

(h) On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.

(i) Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

(j) Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds (22.2 kN).

(k)(i) Except as provided in paragraph (d)(10)(ii) of the standard, when vertical lifelines are used, each employee shall be attached to a separate lifeline.

(l) Lifelines shall be protected against being cut or abraded.

(m) Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet (0.61 m) or less shall be capable of sustaining a minimum tensile load of 3,000 pounds (13.3 kN) applied to the device with the lifeline or lanyard in the fully extended position.

(n) Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet (0.61 m) or less, ripstitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 5,000 pounds (22.2 kN) applied to the device with the lifeline or lanyard in the fully extended position.

(o) Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses shall be made from synthetic fibers.

(p) Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows:

(i) as part of a complete personal fall arrest system which maintains a safety factor of at least two; and

(ii) under the supervision of a qualified person.

(q) Personal fall arrest systems, when stopping a fall, shall:

(i) limit maximum arresting force on an employee to 900 pounds (4 kN) when used with a body belt;

(ii) limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness;

(iii) be rigged such that an employee can neither free fall more than 6 feet (1.8 m), nor contact any lower level;

(iv) bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet (1.07 m); and,

(v) have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet (1.8 m), or the free fall distance permitted by the system, whichever is less.

(r) The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.

(s) Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

(t) Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.

(u) The employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.

(v) Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

(w) Body belts shall be at least one and five-eighths (1 5/8) inches (4.1 cm) wide.

(x) Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists except as specified in other subparts of Subpart M.

(y) When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the employee only as far as the edge of the walking/working surface.

4. **"Positioning device systems."** Positioning device systems and their use shall conform to the following provisions:

(a) Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet (.9 m).

(b) Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds (13.3 kN), whichever is greater.
(c) Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials.
(d) Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of this system.
(e) Connecting assemblies shall have a minimum tensile strength of 5,000 pounds (22.2 kN)
(f) Dee-rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds (16 kN) without cracking, breaking, or taking permanent deformation.
(g) Snaphooks shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snaphook by depression of the snaphook keeper by the connected member, or shall be a locking type snaphook designed and used to prevent disengagement of the snaphook by the contact of the snaphook keeper by the connected member. As of January 1, 1998, only locking type snaphooks shall be used.
(h) Unless the snaphook is a locking type and designed for the following connections, snaphooks shall not be engaged:
(i) directly to webbing, rope or wire rope;
(ii) to each other;
(iii) to a dee-ring to which another snaphook or other connector is attached;
(iv) to a horizontal lifeline; or
(v) to any object which is incompatibly shaped or dimensioned in relation to the snaphook such that unintentional disengagement could occur by the connected object being able to depress the snaphook keeper and release itself.
(i) Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.
(j) Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

5. **"Warning line systems"** Warning line systems [See 1926.501(b)(10)] and their use shall comply with the following provisions:
(a) The warning line shall be erected around all sides of the roof work area.
(i) When mechanical equipment is not being used, the warning line shall be erected not less than 6 feet (1.8 m) from the roof edge.
(ii) When mechanical equipment is being used, the warning line shall be erected not less than 6 feet (1.8 m) from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet (3.1 m) from the roof edge which is perpendicular to the direction of mechanical equipment operation.
(iii) Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.
(iv) When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.
(b) Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:
(i) The rope, wire, or chain shall be flagged at not more than 6-foot (1.8 m) intervals with high-visibility material;
(ii) The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches (.9 m) from the walking/working surface and its highest point is no more than 39 inches (1.0 m) from the walking/working surface;

(iii) After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds (71 N) applied horizontally against the stanchion, 30 inches (.8 m) above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;

(iv) The rope, wire, or chain shall have a minimum tensile strength of 500 pounds (2.22 kN), and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions as prescribed in paragraph (f)(2)(iii) of this section; and

(v) The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

(c) No employee shall be allowed in the area between a roof edge and a warning line unless the employee is performing roofing work in that area.

(d) Mechanical equipment on roofs shall be used or stored only in areas where employees are protected by a warning line system, guardrail system, or personal fall arrest system.

6. **"Controlled access zones**" Controlled access zones [See 1926.501(b)(9) and 1926.502(k)] and their use shall conform to the following provisions.

(a) When used to control access to areas where leading edge and other operations are taking place the controlled access zone shall be defined by a control line or by any other means that restricts access.

(i) When control lines are used, they shall be erected not less than 6 feet (1.8 m) nor more than 25 feet (7.7 m) from the unprotected or leading edge.

(ii) The control line shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge.

(iii) The control line shall be connected on each side to a guardrail system or wall.

(b) Control lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:

(i) Each line shall be flagged or otherwise clearly marked at not more than 6-foot (1.8 m) intervals with high-visibility material.

(ii) Each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches (1 m) from the walking/working surface and its highest point is not more than 45 inches (1.3 m) [50 inches (1.3 m) when overhand bricklaying operations are being performed] from the walking/working surface.

(iii) Each line shall have a minimum breaking strength of 200 pounds (.88 kN).

(c) On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones shall be enlarged, as necessary, to enclose all points of access, material handling areas, and storage areas.

(d) On floors and roofs where guardrail systems are in place, but need to be removed to allow leading edge work to take place, only that portion of the guardrail necessary to accomplish that day's work shall be removed.

7. **"Safety monitoring systems"** Safety monitoring systems are only allowed for roofing operations and will not be utilized by M. G. Newell employees.

8. **"Covers"** Covers for holes in floors, roofs, and other walking/working surfaces shall meet the following requirements:

(a) Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.

(b) All other covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.

(c) All covers shall be secured when installed so as to prevent accidental displacement by the wind, equipment, or employees.

(d) All covers shall be color coded or they shall be marked with the word "HOLE" or "COVER" to provide warning of the hazard.

Note: This provision does not apply to cast iron manhole covers or steel grates used on streets or roadways.

Accidents and Incidents

All accidents and incidents will be investigated in accordance with our accident management plan. The competent person will be responsible for the implementation of all corrective actions.

Training

All employees that will be exposed to falls must have documented training.

Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee) and evaluation of the operator's performance in the workplace.

All training will be documented and the records will be maintained by the corporate office for a minimum of three years.

Competent persons will be trained and certified by outside agencies.

Retraining

Retraining is required when employee performs in an unsafe manner, or there is an incident that did or could have caused injury.

Purpose

The purpose of the Electrical Safety program is to set forth procedures for the safe use of electrical equipment, tools, and appliances at M. G. Newell Corporation.

Scope

This program applies to all M. G. Newell Corporation employees, temporary employees, and contractors. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation, employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Definitions

Affected Personnel - Personnel who normally use and work with electrical equipment, tools, and appliances, but who do not make repairs or perform lock out/tag out procedures.

Appliances - Electrical devices not normally associated with commercial or industrial equipment such as air conditioners, computers, printers, copiers, coffee pots, microwave ovens, toasters, etc.

Definition of Arc Flash – Phenomenon where a flashover of electric current leaves its intended path and travels through air from one conductor to another, or to ground.

Circuit Breaker - A device designed to open and close a circuit by non-automatic means and to open the circuit automatically on a predetermined over current without injury to itself when properly applied within its rating.

Disconnecting Means - A device, or group of devices, or other means by which the conductors of a circuit can be disconnected from their source of supply.

Disconnecting Switch - A mechanical switching device used for isolating a circuit or equipment from a source of power.

Double Insulated Tool - Tools designed of non-conductive materials that do not require a grounded, three wire plug.

Ground - Connected to earth or some conducting body that serves in place of the earth.

Grounded Conductor - A conductor used to connect equipment or the grounded circuit of a wiring system to a grounding electrode or electrodes.

Ground Fault Circuit Interrupter (GFCI) - A device whose function is to interrupt the electric circuit to the load when a fault current to ground exceeds some predetermined value that is less than that required to operate the over current protective device of the supply circuit. *M. G. Newell Corporation shall use GFCIs in lieu of an assured grounding program*.

Insulated - A conductor encased within material of composition and thickness that is recognized as electrical insulation.

Limited Approach Boundary (LAB) - the approach distance to exposed, energized electrical components within which a shock hazard exists. It is the approach limit for unqualified persons.

Premises Wiring - That interior and exterior wiring, including power, lighting, control, and signal circuit wiring together with all of its associated hardware, fittings, and wiring devices, both permanently and temporarily installed, which extends from the load end of the service drop, or load end of the service lateral conductors to the outlet (s). Such wiring does not include wiring internal to appliances, fixtures, motors, controllers, motor control centers, and similar equipment.

Qualified Person - One that has been trained in the repair, construction and operation of electrical equipment and the hazards involved. This includes qualification in Arc Flash safety training.

Restricted Approach Boundary (RAB) - the approach limit for qualified persons to exposed, energized electrical components where there is an increased likelihood of electric shock due to electrical arc-over combined with inadvertent movement.

Strain Relief - A mechanical device that prevents force from being transmitted to the connections or terminals of a cable or extension cord.

Class I Locations - Are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

> Class 1 Division 1 - Is a location (a) in which hazardous concentrations of flammable gases or vapors may exist under normal operating conditions; or (b) in which hazardous concentrations of such gases or vapors may exist frequently because of repairs or maintenance operations or because of leakage; or (c) in which a breakdown or faulty operation or equipment or processes might release hazardous concentrations of flammable gases or vapors, and might also cause simultaneous failure of electrical equipment.
>
> Class 1 Division 2 - Is a location (a) in which volatile flammable liquids or flammable gases are handled, processed, or used, but in which the hazardous liquid, vapors, or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems, or in of abnormal operation of equipment or (b) in which hazardous concentrations of gases or vapors are normally prevented by positive mechanical ventilation, and which might become hazardous through failure or abnormal operations of the ventilating equipment; or (c) that is adjacent to a Class 1, Division 1 location, and to which hazardous concentrations of gases or vapors might occasionally be communicated unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

Class II locations - Class II locations are those that are hazardous because of the presence of combustible dust. Class II locations include the following:

> Class II, Division 1 - A Class II, Division 1 location is a location (a) in which combustible dust is or may be in suspension in the air under normal operating conditions, in quantities sufficient to produce explosive or ignitable mixtures; or (b) where mechanical failure or abnormal operation of machinery or equipment might cause such explosive or ignitable mixtures to be produced, and might also provide a source of ignition through simultaneous failure of electric equipment, operation of protection devices, or from other causes, or (c) in which combustible dusts of an electrically conductive nature may be present.
>
> *NOTE*: This classification may include areas of, areas where metal dusts and powders are produced or processed, and other similar locations that contain dust producing machinery and equipment (except where the equipment is dust-tight or vented to the outside).

- These areas would have combustible dust in the air, under normal operating conditions, in quantities sufficient to produce explosive or ignitable mixtures.
- Combustible dusts that are electrically nonconductive include dusts produced in the handling and processing produce combustible dusts when processed or handled.
- Dusts containing magnesium or aluminum are particularly hazardous and the use of extreme caution is necessary to avoid ignition and explosion.

Class II, Division 2 - A Class II, Division 2 location is a location in which: (a) combustible dust will not normally be in suspension in the air in quantities sufficient to produce explosive or ignitable mixtures, and dust accumulations are normally insufficient to interfere with the normal operation of electrical equipment or other apparatus; or (b) dust may be in suspension in the air as a result of infrequent malfunctioning of handling or processing equipment, and dust accumulations resulting there from may be ignitable by abnormal operation or failure of electrical equipment or other apparatus.

NOTE: This classification includes locations where dangerous concentrations of suspended dust would not be likely but where dust accumulations might form on or in the vicinity of electric equipment. These areas may contain equipment from which appreciable quantities of dust would escape under abnormal operating conditions or be adjacent to a Class II Division 1 location, as described above, into which an explosive or ignitable concentration of dust may be put into suspension under abnormal operating conditions.

Responsibilities

Managers/Supervisor

The Project Manager will develop electrical safety programs and procedures in accordance with OSHA requirements and/or as indicated by events and circumstances.

Project Managers and Site Managers are responsible for ensuring that only qualified employees and or qualified contractors perform electrical repairs or installations.

Site Managers are also responsible for ensuring all applicable electrical safety programs are implemented and maintained at their locations.

Employees are responsible for using electrical equipment, tools, and appliances according to this program, for attending required training sessions when directed to do so, and to report unsafe conditions to their supervisor immediately.

Only qualified employees may work on electric circuit parts or equipment that have not been de-energized. Such employees shall be made familiar with the use of special precautionary techniques, PPE, insulating and shielding materials and insulated tools.

Safe Work Practices

Protective Methods - the first efforts to work safely are as follows.

a. De-energize and lock out the circuit
b. Insulation
c. Guarding
d. Work practices
e. Barricade
f. GFCI

There are several “qualified persons” who may conduct the training

If you must work on energized circuits – be sure safe work practices are followed
1 – Work permit
2 – Personal Protective Equipment
3 – Job briefing.

Inspections

- Electrical equipment, tools, and appliances must be inspected prior to each use.
- The use of a hard fixed GFCI or a portable GFCI adapter shall be used with all portable hand tools, electric extension cords, drop lights and all 110 volt equipment.
- Faulty equipment, tools, or appliances shall be removed from service immediately and tagged “Out of Service”, dated and signed by the employee applying the tag.

Repairs

- Only Qualified Personnel, who have been authorized by the department supervisor or manager, may make repairs to supply cords on electrical tools and to extension cords.
- Only certified electricians shall be allowed to make repairs to electrical equipment and wiring systems.
- The supervisor obtaining the services of a certified electrician is responsible to verify the electrician’s credentials.
- Employees shall not enter spaces containing exposed energized parts unless qualified and proper illumination exists to enable employees to work safely.
- Employees shall not wear conductive apparel such as rings, watches, jewelry, etc. (unless they are rendered non-conductive by covering, wrapping, or other insulating means) while working on or near open energized equipment this includes batteries on trucks, forklifts, phone backup systems or other such equipment.
- If employees are subject to handling long dimensional conductive objects (ducts or pipes) around electrical circuits or equipment, steps for safe work practices shall be employed to ensure the safety of workers.

Extension Cords

- Use only three-wire, grounded, extension cords and cables that conform to a hard service rating of 14 gauge or higher, and grounding of the tools or equipment being supplied.
- Only commercial or industrial rated-grounded extension cords may be used in shops and outdoors.
- Cords for use other than indoor appliances must have a rating of at least 14 amps.
- Cords must have suitable strain relief provisions at both the plug the receptacle ends.
- Work lamps (drop light) used to power electrical tools must have a 3 wire, grounded outlet.
- Adapters that allow three wire, grounded prongs, connected to two wire non-grounded outlets are strictly prohibited.
- Cords must have a service rating for hard or extra-hard service and have S, AJ, ST, SO, SJO, SJT, STO, or SJTO printed on the cord.
- Cords may not be run through doorways, under mats or carpets, across walkways or aisles, concealed behind walls, ceilings or floors, or run through holes in walls, or anywhere where they can become a tripping hazard.
- High current equipment or appliances should be plugged directly into a wall outlet whenever possible.
- All extension cords shall be plugged into one of the following:
    - A GFCI outlet;

  - A GFCI built into the cord;
  - A GFCI adapter used between the wall outlet and cord plug.
- All extension cords and or electrical cords shall be inspected daily or before each use, for breaks, plug condition and ground lugs, possible internal breaks, and any other damage. If damage is found, the extension cord or electrical cord shall be remove from service and repaired or replaced.
- Personal Protective Equipment – Any person working near or around equipment where the nominal voltage greater than 50. Boundary size is determined by using the methods in Annex D of the NFPA 70E standard.

Outlets

- Outlets connected to circuits with different voltages must use a design such that the attachment plugs on the circuits are not interchangeable.

Multiple Outlet Boxes

- Multiple outlet boxes must be plugged into a wall receptacle.
- Multiple outlet boxes must not be used to provide power to microwave ovens, toasters, space heaters, hot plates, coffeepots, or other high-current loads.

Double Insulated Tools

- Double insulated tools must have the factory label intact indicating the tool has been approved to be used without a three wire grounded supply cord connection.
- Double insulated tools must not be altered in any way, which would negate the factory rating.

Switches, circuit breakers, and disconnects

- All electrical equipment and tools must have an on and off switch and may not be turned on or off by plugging or unplugging the supply cord at the power outlet.
- Circuit breaker panel boxes and disconnects must be labelled with the voltage rating.
- Each breaker within a breaker panel must be labelled for the service it provides.
- Disconnect switches providing power for individual equipment must be labelled accordingly.

Ladders

- Only approved, non-conductive ladders, may be used when working near or with electrical equipment, which includes changing light bulbs.
- Ladders must be either constructed of wood, fibreglass, or have non-conductive side rails.
- Wood ladders should not be painted, which can hide defects, except with clear lacquer.
- When using ladders they shall be free from any moisture, oils, and greases.

Energized and Overhead High Voltage Power Lines & Equipment

- A minimum clearance of 10 feet from high voltage lines must be maintained when operating vehicular and mechanical equipment such as forklifts, cranes, winch trucks, and other similar equipment.
- When possible, power lines shall be de-energized and grounded or other protective measures shall be provided before work is started.
- Minimum approach distance to energized high power voltages lines for unqualified employees is 10 feet.
- Minimum approach distance for qualified employees shall be followed per 29 CFR 1910.333(c)(3)(i) Qualified – Table S5 Selection and Use of Work Practices - Approach Distances for Qualified Employees – Alternating Current).

Confined or Enclosed Work Spaces

- When an employee works in a confined or enclosed space that contains exposed energized parts, the employee shall isolate the energy source and turn off the source and lock and tag out the energy source (Only qualified electricians can work on an exposed energy source).
- Protective shields, protective barriers or insulating materials as necessary shall be provided.

Enclosures, Breaker Panels, and Distribution Rooms

- A clear working space must be maintained in the front, back and on each side of all electrical enclosures and around electrical equipment for a safe operation and to permit access for maintenance and alteration.
- A minimum 36" working floor space in front of panels and enclosures shall be maintained.
- Employees may not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely.
- Housekeeping in distribution rooms must receive high priority to provide a safe working and walking area in front of panels and to keep combustible materials to the minimum required to perform maintenance operations.
- All enclosures and distribution rooms must have "Danger: High Voltage – Authorized Personnel Only" posted on the front panel and on entrance doors.
- Flammable materials are strictly prohibited inside distribution rooms (Boxes, rags, cleaning fluids, etc.)

Lock Out/Tag Out

- No work shall be performed on (or near enough to them for employees to be exposed due to the dangers of tools or other equipment coming into contact with the live parts) live parts and the hazards they present.
- If any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both.
- Conductors and parts of electrical equipment that have been de-energized but not been locked or tagged out shall be treated as live parts.
- Per M. G. Newell Corporation policy all electrical hot work will be outsourced and performed only by qualified and licensed electrical contractors who are familiar with the use of special precautionary techniques, PPE, insulating and shielding materials and insulated tools. Any equipment being made ready for maintenance will be locked out using M. G. Newell Corporation's Control of Hazardous Energy – Lock Out/Tag Out Program. Lockouts are supervised by the Site Manager. Designated employees in some branches may be trained by local management to lock out equipment. If live sources are to be worked it will only be performed with the knowledge of local management. Only certified electricians may work on electric circuit parts or equipment.
- Only authorized personnel may perform lock out/tag out work on electrical equipment and will follow M. G. Newell Corporation's Control of Hazardous Energy – Lock out/Tag Out Program.
- Authorized personnel will be trained in lock out/tag out procedures.
- Affected personnel will be notified when lock out/tag out activities are being performed in their work area.

Contractors

- Only approved, certified, electrical contractors may perform construction and service work on M. G. Newell Corporation or client property.
- It is the Manager/Supervisors responsibility to verify the contractor's qualifications.

Fire Extinguishers

- Approved fire extinguishers must be provided near electrical breaker panels and distribution centers.

- Water type extinguishers shall not be located closer than 50 feet from electrical equipment.

Electric Shock-CPR:

- If someone has received an electric shock and is unconscious, first check to see if their body is in contact with an electrical circuit. Do not touch a person until you are sure there is no contact with an electrical circuit.
- Call for help immediately.
- When it is safe to make contact with the victim, begin CPR if the person's heart has stopped or they are not breathing.

Electric Welders

- A disconnecting means shall be provided in the supply circuit for each motor-generator arc welder, and for each AC transformer and DC rectifier arc welder which is not equipped with a disconnect mounted as an integral part of the welder.
- A switch or circuit breaker shall be provided by which each resistance welder and its control equipment can be isolated from the supply circuit. The ampere rating of this disconnecting means may not be less than the supply conductor capacity.

Equipment Grounding

- All gas compressors, air compressors, separators, vessels, etc. shall be grounded by means of using a lug and ground strap, nominal in size to a ½" bolt or larger, attached to a ground rod six feet or longer.
- Equipment bonding jumpers shall be of copper or other corrosion-resistance material.
- The transfer of hazardous or flammable material from a metal or plastic container with a flash point of 100 degrees F or less shall have a ground strap from the container and attached to the skid or a ground rod placed in the ground.

Assured Grounding

OSHA requires that employers shall use either ground fault circuit interrupters (GFCI) or an assured equipment grounding conductor program to protect personnel from electrical shock while working.

- M. G. Newell Corporation shall use GFCI's. An assured grounding program may be used in addition to GFCIs, but not as a replacement.

Ground Fault Circuit Interrupters

All 120-volt, single-phase 15 and 20 ampere receptacle outlets on construction or maintenance sites, which are not part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground fault circuit interrupters for personnel protection.

- All hand portable electric tools and extension cords shall use a GFCI.
- GFCI's must be used on all 120 volt, single-phase 15 amp and 20 amp receptacles within 6 feet of a sink, damp areas or on installed outdoor equipment.
- The GFCI must be the first device plugged into a permanent receptacle.
- The GFCI must be tested before each use.
- Arc Flash Warning Labels – Each piece of equipment that operates at 50 volts or more must be evaluated for Arc Flash. This evaluation determines boundaries and what Arc Flash equipment must be born.

Personal Protective Equipment

- Individuals shall be provided and shall use electrical protective equipment that is appropriate for the type of work to be performed.
- If the insulating capability of protective equipment may be subject to damage during use, the insulating material shall be protected, for example, an outer covering of leather when it is used for the protection of rubber insulating material.
- Employees shall wear non-conductive head protection wherever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts.
- Employees shall wear protective equipment for the eyes or face wherever there is danger of injury to the eyes or face from electric arcs or flashes or from flying objects resulting from electrical explosion.
- Employees shall wear protective face and body equipment when working on equipment using chemicals such as battery acid or caustic fluids.
- Employees shall wear approved protective equipment when working on equipment with live voltages over 50 volts.
- Employees shall wear Arc Rated clothing with sleeves rolled down.

Training

Appropriate PPE is determined by the user following manufacturer's guidelines. All maintenance, use and inspection of PPE should follow the manufacturers recommendations. Equipment testing is guaranteed only as long as indicated by the manufacturer's or tester's stamp.

All regular full time and temporary employees will be trained in Electrical Safety.

Employees who face a risk of electric shock, but who are not qualified persons, shall be trained and familiar with electrically related safety practices.

Employee shall be trained in safety related work practices that pertain to their respective job assignments.

Employees shall be trained on clearance distances.

All training will be documented and training records maintained by the company safety director.

Purpose

The purpose of this program is to define the requirements for safely operating an aerial lift device, including scissor lifts Bothe these devices fall under the scaffold standard, but are addressed in this program due to their specific hazards.

Scope

This policy shall cover all aerial lift devices used on company property. All employees shall operate these devices in accordance with this policy.

Key Responsibilities

Supervisors

- Shall ensure that all lifts are properly operated by trained personnel.
- Shall ensure that lift devices are designed and constructed in conformance with applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms" ANSI A92.2-1969, including appendix.

Employees

- Shall follow all aspects of this program.
- Shall only operate equipment that they have been trained and authorized to operate.

Procedure

- Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by an equivalent entity.
- Lift controls shall be tested each day prior to use to determine that such controls are in safe working conditions. Tests shall be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are in proper working condition.
- Only authorized persons shall operate a lift.
- Boom and basket load limits specified by the manufacturer shall not be exceeded.
- Llifts shall have a working back-up alarm audible above the surrounding noise level or the vehicle is backed up only when an observer (spotter) signals that it is safe to do so.
- The minimum clearance between electrical lines and any part of the equipment shall be 10 feet for lines rated 50 kV or below.
- Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- Approved fall protection shall be worn and a lanyard attached to the boom or basket when working from an aerial lift. Fall protection may be required in a scissor lift, depending on the policies of our customers.

Training

- All employees who operate an aerial lift device shall be trained in the safe operation of the specific device they will operate.
- Supervisors should use the operator's manual to train employees on the safe operation and limitations of the aerial lift.
- Prior to allowing the employee to operate the lift unsupervised, the supervisor should observe and evaluate the employees ability to safety operate the lift.
- All training shall be documented.

Purpose

The purpose of this program is to prevent injuries do to work from elevated work areas and ensure employees and contractors are able to inspect scaffolding materials and erected scaffolds.

Scope

This program is applicable at every work area where scaffolding is erected. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Definitions

Bearer - A horizontal member of a scaffold upon which the platform rests and which may be supported by ledgers.

Brace - A tie that holds one scaffold member in a fixed position with respect to another member.

Coupler - A tie that holds one scaffold member in a fixed position with respect to another member.

Double pole or independent pole scaffold - A scaffold supported from the base by a double row of uprights, independent of support from the walls and constructed of uprights, ledgers, horizontal platform bearers, and diagonal bracing.

Guardrail - A rail secured to uprights and erected along the exposed sides and ends of platforms.

Heavy Duty Scaffold - A scaffold designed and constructed to carry a working load not to exceed 75 pounds per square foot.

Ledger (stringer) - A horizontal scaffold member which extends from post to post and which supports the putlogs or bearer forming a tie between the posts.

Light Duty Scaffold - A scaffold designed and constructed to carry a working load not to exceed 25 pounds per square foot.

Manually Propelled Mobile Scaffold - Manually propelled mobile scaffold.

Maximum intended load - The total of all loads including the working load, the weight of the scaffold, and such other loads as may be reasonably anticipated.

Medium duty scaffold - A scaffold designed and constructed to carry a working load not to exceed 50 pounds per square foot.

Mid-Rail - A rail approximately midway between the guardrail and platform, used when required, and secured to the uprights erected along the exposed sides and ends of platforms.

Putlog - A scaffold member upon which the platform rests.

Runner - The lengthwise horizontal bracing or bearing members or both.

Scaffold - Any temporary elevated platform and its supporting structure used for supporting workmen or materials or both.

Toe board - A barrier secured along the sides and ends of a platform, to guard against the falling of material.

Tube and coupler scaffold - An assembly consisting of tubing, which serves as posts, bearers, braces, ties, and runners, a base supporting the posts, and special couplers which serve to connect the uprights and to join the various members.

Tubular welded frame scaffold - A sectional, panel, or frame metal scaffold substantially built up of prefabricated welded sections that consist of posts and horizontal bearer with intermediate members. Panels or frames shall be braced with diagonal or cross braces.

Working Load - Load imposed by men, materials, and equipment.

Key Responsibilities

Project Managers and Site Managers

- Responsible for ensuring that scaffolds are erected by a qualified person, that set up inspections are performed, and all daily inspections are performed before work starts for the day.
- Responsible for ensuring that all employees, and/or contractors have been trained in the use and inspection methods for scaffolds.
- Responsible for ensuring that all employees and contractors are aware that if an inspection discovers a defect, the scaffold cannot be used until repairs are made.

Employees

- Responsible for following this program by inspecting the scaffolds daily and report any damages or repairs that may be needed to their supervisor.

Procedures

General Requirements

Scaffolds shall be furnished and erected in accordance with applicable standards for persons engaged in work that cannot be done safely from the ground or from solid construction.

Scaffolds shall only be erected by a qualified person, who is competent to certify the scaffolding safe to use.

The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose boards shall not be used to support scaffolds or planks.

Scaffolds and their components shall be capable of supporting without failure at least four times the maximum intended loads. Scaffold components must meet OSHA requirements 29 CFR 1910.28 and 29 CFR 1926.451.

Wood scaffold planks must be cross-supported every 8 feet. Scaffold deck boards shall be cleated, wired or nailed into place.

All working levels of scaffolds will be floored completely except where internal ladders require space for ladder openings.

Scaffolds and other devices mentioned or described in this program shall be maintained in safe condition. Scaffolds shall not be altered or moved horizontally while they are occupied.

Any scaffold damaged or weakened from any cause shall be immediately repaired and shall not be used until repairs have been completed.

Scaffolds shall not be loaded in excess of the working loads for which they are intended.

Bolts used in the construction of scaffolds shall be of adequate size and in sufficient numbers at each connection to develop the designed strength of the scaffold.

All platforms shall be overlapped (minimum 12 inches) and secured from any movement.

An access ladder or equivalent safe access shall be provided.

Scaffold planks shall extend over their end supports not less than 6 inches or more than 18 inches.

The poles, legs, or uprights of scaffolds shall be plumb, and securely and rigidly braced to prevent swaying and displacement.

Materials being hoisted onto a scaffold shall have a tag line.

Overhead protection shall be provided for workers on a scaffold exposed to overhead hazards.

Toe boards and guardrails shall be installed if a scaffold or platform is erected to a height of 6 feet or more. Scaffolds shall be provided with a screen between the toe board and the guardrail, extending along the entire opening, consisting of No. 18 gauge wire one-half inch mesh or the equivalent, where workers are required to work or pass under the scaffolds.

Work shall not be performed on a scaffold during storms or high winds.

Work shall not be performed on scaffolds that are covered with snow or ice, unless all snow and ice has been removed and all planking has been sanded to prevent slipping.

Tools, material, and debris shall not be allowed to accumulate in quantities to cause a hazard.

Inspections

Scaffolding shall be inspected, by a qualified person, in conjunction with the manufactures required recommendations. The Competent Person must insure scaffolds are safe prior to and during scaffold use.

- At a minimum, the following shall be inspected after erection, before the start of the day or beginning of a shift change:

    - Ground or surface footing shall be inspected to ensure that there is no settling.
    - All main supports and cross braces shall be inspected for any signs of damage, missing pins, bolts and any locks and/or safety keepers.
    - All walking surfaces and/or planks shall be inspected for damage and proper placements and any possible movement.
    - All walkways and planks must be secure to prevent any movement.

- Inspection shall be made to ensure that the scaffold is stable and any movement is prevented.

- If during the inspection, a defect or damage to the scaffold is discovered, the scaffold shall be tagged out and use prohibited until needed repairs are made.

Mandatory Signs and Tags
Signs and tags shall be visible at all times when work is being performed, and shall be removed or covered promptly when the hazards no longer exist.

Defective or unsafe equipment or conditions shall be tagged out by the competent person using a weather resistant tag secured to the scaffolding structure on all four sides and must be complied with.

Danger signs shall be used only where an immediate hazard exists. Danger signs must be posted around the immediate area of the scaffold, to alert other workers of possible danger from falling objects from the scaffold.

Caution Signs and/or barricade tape shall be used to mark off a larger area around scaffolding warning other workers to use caution.

Modifications
Modification and repairs shall be performed by a qualified person, who is competent to certify the scaffolding safe to use.

Employees shall not perform any modifications or repairs, unless they have been trained and certified, failure to comply may result in disciplinary action and or termination.

Training Requirements

The supervisor shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training shall occur before use and include the following areas, as applicable:

- Basic safety information.
- The nature of any electrical hazards, fall hazards and falling object hazards in the work area.
- The proper use of the scaffold, and the proper handling of materials on the scaffold.
- The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used.
- The maximum intended load and the load-carrying capacities of the scaffolds used.

The supervisor shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a competent person to recognize any hazards associated with the work in question.

- The training shall include the following topics, as applicable:
- The nature of scaffold hazards.
- The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in use.
- The design criteria, maximum intended load-carrying capacity and intended use of the scaffold.

When the employer has reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, the employer shall retrain each employee so that the requisite proficiency is regained.

Retraining is required in at least the following situations:

- Where changes in scaffolding at the worksite present a hazard about which an employee has not been previously trained.
- Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained.
- Where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

Purpose

The purpose of this program is to establish procedures for affixing appropriate lockout/tagout equipment to energy isolating devices and to otherwise disable machines or equipment to prevent unexpected energization, start up or release of stored energy to prevent injury or incident.

Scope

This program covers the servicing and maintenance of machines and equipment where the unexpected energization or start up of the machine or equipment, or the release of stored energy could cause an incident. This program establishes minimum performance requirements for the control of such hazardous energy. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Definitions

Affected employee - An employee whose job requires them to operate or use a machine or equipment on which servicing and maintenance is being performed under lockout/tagout, or whose job requires the employee to work in an area in which such servicing or maintenance is being performed.

Authorized employee - A person that performs lockout/tagout procedures on machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes authorized when that employee's duties include performing servicing or maintenance covered under this program.

Capable of being locked out - An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out if lockout can be achieved without the need to dismantle, rebuild or replace the energy isolating device or permanently alter its energy control capability.

Energized - Connected to an energy source or containing residual or stored energy.

Energy isolating device - A mechanical device that physically prevents the transmission or release of energy including, but not limited to, the following:

- A manually operated electrical circuit breaker, a disconnect switch, a manually operated switch by which the conductors and no pole can be operated independently, a line valve, a block and any similar device used to block or isolate energy.
- Push buttons, selector switches and other control circuit type devices are not isolating devices.

Energy source - Any source of gas, electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy sources.

Hot tap - A procedure used in the repair, maintenance and service activities that involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or other appurtenances (note: 1910.147 (2) (iii) [B] [1] [2] [3]).

Lockout - The placement of a lockout device on an energy isolating device in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device - A device that utilizes a positive means, such as either a key or combination type lock, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Normal operation - The utilization of a machine or equipment to perform its intended operation.

Servicing and/or maintenance - Workplace activities such as constructing, setting up, adjusting, inspecting, modifying and maintaining and/or servicing machines and equipment, where the employee may be exposed to an unexpected energization or startup of the equipment or release of a hazardous energy source.

Setting up - Any work performed to prepare a machine or equipment for performing its normal operation.

Tagout: - The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device - A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until tagout device is removed.

Key Responsibilities

Project Managers and Site Managers

- Responsible to control and enforce this plan and to see that all their employees and contractors that are affected by lockout/tagout procedures, have the knowledge and understanding required for safe application, usage, and removal of all energy controls and devices.
- Ensure employees are trained and comply with the requirements of this program.

Employees

- Employees who are affected by this program are required to attend training on an annual basis.
- Are required to follow the provisions of this program.

Procedure

General
Only an authorized employee or employees performing the servicing or maintenance shall perform lockout or tagout.

Devices
Lockout Device - If an energy source can be locked out a device that utilizes a lock to hold an energy isolating device in a safe position shall be used. Each site shall have the same type of lock as specified by M. G. Newell Corporation.

Tagout Device – If an energy source cannot be locked out with a lockout device then a tagout device shall be used. Tagout devices are a warning only level of protection and shall be weather and chemical resistant, standardized in color with clear written warning of hazardous energy; i.e. Do Not Operate, Do Not Start, Do Not Energize, etc. Each site shall have the same style of tags specified by M. G. Newell Corporation.

Specific Energy Control Procedures
Each manager or supervisor is responsible for developing specific step-by-step shutdown and startup procedures for a particular machine or piece of equipment in their respective area. This applies to all equipment that have multiple energy sources. If the equipment can have all energy sources neutralized by a single switch, or unplugging the equipment, a written procedure is not required.

- A written, step-by-step isolation procedure for shutdown and startup shall be prepared for each type of machine or piece of equipment. (except as noted above)

- This procedure shall include:

    - Equipment number if assigned.
    - Equipment location.
    - Energy Source(s) (i.e. electrical, hydraulic, gas pressure, etc.)
    - Location of isolating controls (i.e. breaker switches, valves, etc.)
    - Quantity of isolating controls
    - Quantity of locks required to isolate the equipment
    - Other hardware required to isolate the equipment (i.e. chains, valve covers, blocks, etc.)
    - List any residual energy required to be dissipated before work begins.

Specific Sequence for Application of Energy Control

1. Notification
Authorized employees must notify all other affected employees of the application and removal of lockout/tagout devices. Notification shall be given before the controls are applied and before they are removed from the machine or equipment.

2. Preparation for Shutdown

Before an authorized or affected employee shuts down a machine or equipment, the authorized employee shall have the knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means (locks) to control the energy sources.

3. Machine or Equipment Shutdown

The machine or equipment shall be shut down using the procedures established for that machine or piece of equipment. The shutdown shall be orderly to avoid any addition hazards to employees as a result of the stoppage.

4. Machine or Equipment Isolation

All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

5. Lockout/Tagout Devices and Application

- Each authorized employee shall have the proper number of locks and devices to be able to perform proper lockout/tagout procedures for machines or equipment that they may be working on.
- Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.
- Each lockout and tagout devices shall include the name of the individual placing the device.
- Lockout devices shall be affixed in a manner to hold the energy isolating devices in a safe or off position.
- Tagout devices shall be affixed in a manner that will clearly indicate that the operation or movement of isolating devices from the safe or off position.
- Tagout devices used with energy isolating devices with the capability of being locked out shall be fastened at the same point at which the lock would have been attached. If a tag cannot be directly attached to the energy isolation device it shall be located as close as safely as possible to the device in a position that will be immediately obvious to anyone attempting to operate the device.
- Each energy source shall be locked out completely isolating the equipment.
- Isolating machines or equipment shall include, but are not limited to:

    - Pumps, compressors, generators, electric distribution, storage tanks, etc.

    - Each type of equipment to be isolated shall have specific procedures for isolation, i.e. for compressors: suction, discharge, power, starting, fuel, dumps shall be closed, locked and tagged out properly. The blow-down valve shall be opened, locked and tagged out properly. (NOTE): If compressor has a side stream hooked up, the side stream shall be closed, locked and tagged out properly.

6. Stored Energy and the Possibility of Reaccumulation

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained and otherwise rendered safe.

If there is a possibility of re-accumulation of stored energy, verification of isolation shall be continued until the servicing or maintenance operation is completed, or until the possibility of such accumulation no longer exists.

7. Verification of Isolation

The authorized employees performing the lockout procedure verifies/ensures that the equipment is isolated or disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation

of the machine or equipment by operating the control(s) or by testing to make certain the equipment will not operate.

Multiple Workers

A crew of authorized employees may use a group lockout or tagout device. This will afford the group of employees a level of protection equal to that provided by a personal lockout or tagout device.

- A tailgate meeting shall be conducted to review the lockout procedures and other information as required for safe work to continue – all crafts and effected departments shall be involved.
- An authorized employee will isolate the equipment and ascertain the exposure status of individual group members.
- All workers will then place their individual locks on the device's group lockout or tagout device after they have verified the procedure.
- The crew leader or an assigned authorized employee shall be responsible of assuring the continuity of the lockout procedures including documenting lockout information passed along during a shift or personnel changes.

Release from Lockout/Tagout

When servicing or maintenance is completed or when Lockout / Tagout devices must be temporarily removed, the equipment requires testing and the machine or equipment is ready for testing or to return to normal operating conditions, the following steps shall be taken, in this order:

- Check the machine or equipment and the immediate area surrounding the machine or equipment to ensure that all nonessential items such as tools have been removed and that the machine or equipment components are operationally intact.
- Check the work area to ensure that all personnel have been safely positioned or removed from the area.
- Remove the Lockout/Tagout device
- Energize and proceed with testing
- Deenergize and reapply control methods including Lockout / Tagout devices
- Document the procedure by use of the completed isolation log and provide to supervisor for filing.

Removal of Locks

The authorized employee who applied the lock shall be the one to remove their lock. However, after all work has been completed, certain conditions may arise which prohibit this person from being present to remove the lock.

The following procedures shall be followed to allow for the removal of a lock that another person has applied:

- Every effort shall be made to contact the authorized employee who applied the lock to obtain the key(s).
- If the key(s) cannot be made available, the employee who requests removal of the lock shall contact their supervisor.
- The supervisor shall verify that every effort was made to contact the original authorized employee who applied the lock and to obtain the key(s).
- The employee removing the lock shall note on the Service Report that the lock(s) were removed with permission by supervisor.
- All reasonable efforts will be made by supervisor to notify that employee their lock has been removed, ensuring that the authorized employee has this knowledge before they return to work.

- If the equipment is client owned, the supervisor or employee requesting to remove the lock(s) shall contact the client to get the lock removed. Clients must remove their lock(s).
- NOTE: M. G. Newell Corporation employees shall not remove any client locks.

Shift or Personnel Changes
In the event shift or personnel changes occur during maintenance and/or repair activities, the designated M. G. Newell Corporation employee in charge shall take the necessary steps to maintain the continuity of the lockout/tagout protection. This includes maintaining that all provisions in this procedure are adhered to and the transfer of lockout/tagout devices between authorized employees is accomplished.

Contractors
Contractors performing lockout procedures on M. G. Newell Corporation property or jobs shall comply with this procedure. Contractors shall supply their own locks.

M. G. Newell Corporation shall initially lockout M. G. Newell Corporation machines and equipment before the contractor will be allowed to apply their own lock in addition to the M. G. Newell Corporation's.

Annual Audits
Each year the manager or supervisor, or his representative, will perform an inspection of the Lockout Program in their respective areas to verify the effectiveness of the program. An authorized employee other than the one(s) utilizing the energy control procedure being inspected shall perform the audit and shall verify that:

- Each authorized and/or affected employee has been trained as required.
- Any new equipment added has specific lockout procedures developed and documented.
- Current procedures are adequate for performing complete isolation of equipment and resulting in a zero energy state.
- The annual audit will be certified in writing and a copy of the audit maintained on file at the managers/supervisors office.

TRAINING

M. G. Newell Corporation shall provide training to ensure that the purpose and function of the energy control program are understood by authorized employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees. The training shall include the following:

- The recognition of applicable hazardous energy (lockout/tagout) sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.

- The purpose and use of energy control procedures.

- When tagout systems are used, employees shall also be trained in the following limitations of tags:

    - Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.

- When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.
- Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.
- Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.
- Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.

All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

Retraining
Retraining shall be conducted whenever a periodic inspection reveals, or whenever M. G. Newell Corporation has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

The retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

Training Documentation
M. G. Newell Corporation shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

SPECIFIC EQUIPMENT LOCKOUT PROCEDURES

Department_____

Equipment No._____

Energy Source_____

Procedure for Shutdown and Isolation:

(List number of steps required to isolate machine or equipment - write N/A on lines not used or add additional steps if necessary)

STEP NO.

1._____
2._____
3._____
4._____
5._____
6._____
7._____
8._____
9._____
10._____

Additional Information:_____
_____
_____
_____

Prepared By:_____ Date:_____

(This procedure to be communicated to all authorized and affected employees and kept on file at location of machine or equipment)

SAMPLE TAG

WARNING

MINIMUM LOCK/OUT – TAG/OUT PROCEDURES

Inlet Suction Block Valve Discharge Block Valve
Fuel Gas Valve Start Gas Valve
Liquid Dump Line Blow Down (Lock Open)

When working on this compressor package the following items must be **LOCKED OUT & TAGGED OUT**. Residual pressure must be blown down. Open all valves on surge bottles and piping to relieve any pressure that may be trapped.

Side Stream (For Units Set up with Side Streams)

When working on the compressor each person must lock and tag the compressor package!

ISOLATION LOG

Date of Isolation:

Description of Work:

List of Equipment out of Service:

Necessary Requirements of Clear Isolation:

Authorized Employee Signature: _____

Person Continuing Work Signature: _____

Locks/Tags for GROUP LOCKOUT or Multiple Locks/Tags

Lock # or Tag	Date Installed	Date Removed	Print Name (for Group Lockout)	Signature

(If additional space is needed, please attach an additional page)

ANNUAL AUDIT OF THE CONTROL OF HAZARDOUS ENERGY PROGRAM

I certify that an audit of the M. G. Newell Corporation "Control of Hazardous Energy" Program was conducted and that each employee has been trained in the recognition and procedures to lockout equipment they may be required to work on or may be affected by.

I further acknowledge that the current procedure is adequate to safely lockout equipment in this department for servicing and maintenance.

Department: _____

Manager (or representative): _____

Date: _____

Original to file: _____

Purpose

The purpose of this program is to assure a safe work environment during welding, cutting, and hot work operations.

Scope

This program is applicable to all employees directly involved or assisting in the welding, cutting and hot work operations. When work is performed on a no owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent. Operators of equipment should report any equipment defect or safety hazards and discontinue use of equipment until its safety has been assured. Repairs shall be made only by qualified personnel. If welding and cutting cannot be conducted safely the welding and cutting operation shall not be performed.

Definitions

Welding/Hot Work Procedures - any activity which results in sparks, fire, molten slag, or hot material which has the potential to cause fires or explosions.

Examples of Hot Work - Cutting, Brazing, Soldering, Thawing Pipes, Grinding, using an electric tool in a hazardous area and Welding.

Special Hazard Occupancies - any area containing Flammable Liquids, Dust Accumulation, Gases, Plastics, Rubber and Paper Products.

Hazards - includes, but not limited to the following; fires and explosions, skin burns, welding "blindness", and respiratory hazards from fumes and smoke.

Key Responsibilities

Project Managers and Site Managers

- Determine if its property is safe for welding and cutting operations.
- Establish safe areas for welding and cutting operations.
- Provide training for all employees whose task includes heat, spark or flame producing operations such as welding, brazing, or grinding.
- Develop and monitor effective hot work procedures.
- Provide safe equipment for hot work.
- Provide proper and effective PPE for all hot work.
- Monitor all hot work operations.
- Ensure all hot work equipment and PPE are in safe working order.
- Allow only trained and authorized employees to conduct hot work and conduct inspections of the hot work area before operations begin.
- Ensure permits are used for all hot work outside authorized areas.

Employees

- Follow all hot work procedures.
- Properly use appropriate hot work PPE.
- Inspect all hot work equipment before use.
- Report any equipment problems or unsafe conditions.

Procedure

General

Before cutting or welding is permitted the area shall be inspected by a M. G. Newell Corporation supervisor responsible for inspection and granting authorized welding and cutting operations. Precautions that are to be taken shall be in the form of a written Hot Work permit.

Where practicable all combustibles shall be relocated at least 35 feet from the work site. Where relocation is impractical, combustibles shall be protected with flameproof covers, shielded with metal, guards, curtains, or wet down the material to help prevent ignition of material.

Ducts, conveyor systems, and augers that might carry sparks to distant combustibles shall be protected or shut down.

Where cutting or welding is done near walls, partitions, ceilings, or openings in the floor (grating, manholes, etc.), fire-resistant shields or guards shall be provided to prevent ignition.

If welding is to be done on a metal wall, partition, ceiling, or solid decking/flooring, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation of heat. Where combustibles cannot be relocated on the opposite side of the work, a fire watch person shall be provided on the opposite side of the work.

Welding shall not be attempted on a metal partition, wall, and ceiling or decking/flooring constructed of combustible sandwich panels.

All hot work must be discontinued if any equipment is damaged or in need of repair.

Cutting or welding on pipes or other metal in contact with combustible walls, partitions, floors, ceilings, or roofs shall not be undertaken if the work is close enough to cause ignition by combustion.

Cutting or welding shall not be permitted in the following situations:

- In areas not authorized by management.
- In sprinkled buildings while such protection is impaired, unless approved by the client.
- In the presence of potentially explosive atmospheres, e.g. flammables.
- In areas near the storage of large quantities of exposed, readily ignitable materials.
- In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.
- All dust accumulation shall be cleaned up before welding or hot work is permitted.

Whenever welding or cutting is performed in locations where other than a minor fire might develop or any of the conditions mentioned above cannot be met, a fire watch shall be provided.

- The fire watch shall be provided during and for a minimum of 1/2 hour past the completion of the welding project.
- The fire watch shall be trained in the use of fire extinguishers and the facility's alarm system.
- During this time the fire watch will have appropriate fire extinguishers readily available.
- A hot-work permit will be issued on all welding or cutting outside of the designated welding area.

Fire Prevention Measures

A designated welding area shall be established to meet the following requirements:

- Floors swept and cleaned of combustibles within 35 feet of work area.
- Flammable and combustible liquids and material will be kept 35 feet from work area.
- Adequate ventilation.
- At least one 10 pound dry chemical fire extinguisher shall be within access of 35 feet of the work area.
- Protective dividers such as welding curtains or noncombustible walls will be provided to contain sparks and slag to the combustible free area.

Requirements for welding conducted outside the designated welding area:

- Portable welding curtains or shields must be used to protect other workers in the welding area.
- A hot-work permit must be completed and complied with prior to initiating welding operations.
- Respiratory protection is mandatory unless an adequate airflow away from the welder and others present can be established and maintained.
- Plastic materials must be covered with welding tarps during welding procedures.
- Fire Watch must be provided for all hot-work operations.

After welding operations are completed, the welder shall mark the hot metal or provide some other means of warning other workers.

Confined Spaces

Refer to M. G. Newell Corporation's Confined Space Program before commencing any welding, cutting, and/or brazing operations in an area meeting the requirements of a confined space.

- A space that Is large enough and so configured that an employee can bodily enter and perform assigned work;
- Has limited or restricted means for entry or exit (for example, tanks, vessels, coolers, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
- Is not designed for continuous occupancy.

When welding or cutting is being performed in any confined spaces, the gas cylinders and welding machines shall be left on the outside. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement.

When a welder must enter a confined space through a manhole or other small opening, means shall be provided for quickly removing him in case of an emergency.

- When safety belts and lifelines are used for this purpose, they shall be so attached to the welder's body that it cannot be jammed in a small exit opening.
- An attendant with a preplanned rescue procedure shall be stationed outside to observe the welder at all times and be capable of putting rescue operations into effect.

Additional Precautions

When arc welding is to be suspended for any substantial period of time, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur and the machine shall be disconnected from the power source.

In order to eliminate the possibility of gas escaping through leaks of improperly closed valves, when gas welding or cuffing, the torch valves shall be closed and the fuel-gas and oxygen supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used for a substantial period of time, such as during lunch hour or overnight. If practical, the torch and hose shall also be removed from the confined space.

When welding must be performed in a space entirely screened on all sides, the screens shall be so arranged that no serious restriction of ventilation exists. It is desirable to have the screens so mounted that they are about 2 feet (0.61 m) above the floor unless the work is performed at so low a level that the screen must be extended nearer to the floor to protect nearby workers from the glare of welding.

A fixed enclosure shall have a top and not less than two sides which surround the welding or cutting operations, and a rate of airflow sufficient to maintain a velocity away from the welder of not less than 100 linear feet (30 m) per minute.

All welding and cutting operations carried on in confined spaces shall be adequately ventilated to prevent the accumulation of toxic materials or possible oxygen deficiency. This applies not only to the welder, but also to helpers and other personnel in the immediate vicinity. All air withdrawn will be replaced with air that is clean.

In circumstances for which it is impossible to provide such ventilation, airline respirators or hose masks approved for this purpose by the National Institute for Occupational Safety and Health (NIOSH) will be provided. In areas immediately hazardous to life, a full-face piece, positive pressure, self-contained breathing apparatus or a combination full-face piece, positive pressure supplied-air respirator with an auxiliary, self contained air supply approved by NIOSH must be used.

Where welding operations are carried on in confined spaces and where welders and helpers are provided with hose masks, hose masks with blowers or self-contained breathing equipment, a worker shall be stationed on the outside of such confined spaces to ensure the safety of those working within.

Fumes, Gases and Dust

Fumes produced by some welding processes can be toxic and may require source extraction. An assessment of the work to be performed must be completed before each job is undertaken. Fumes generally contain particles from the material being welded. Welding fumes can have an acute effect on the respiratory system.

Any welding, cutting or burning of lead base metals, zinc, cadmium, mercury, beryllium or exotic metals or paints that could produce dangerous fumes shall have proper ventilation or respiratory protection.

Welders and helpers will refer to M. G. Newell Corporation's Respiratory Protection Program to determine the appropriate respiratory protection to be used during welding operations.

All welding and cutting operations shall be adequately ventilated to prevent the accumulation of toxic materials. This applies not only to the welder, but also to helpers and other personnel in the immediate vicinity.

Personal Protection

Helmets and hand shields shall be made of a material, which is an insulator for heat and electricity. Helmets, shields, and goggles shall not be readily flammable and shall be capable of withstanding sterilization.

Helmets and hand shields shall be arranged to protect the face, neck and ears from direct radiant energy from the arc.

Helmets shall be provided with filter plates and cover plates designed for easy removal.

All parts shall be constructed of a material, which will not readily corrode or discolor the skin.

Goggles shall be ventilated to prevent fogging of the lenses as much as practicable.

All glass for lenses shall be tempered, substantially free from scratches, air bubbles, waves and other flaws. Except when a lens is ground to provide proper optical vision correction, the front and rear surfaces of lenses and windows shall be smooth and parallel.

Lenses shall bear some permanent distinctive marking which may readily identify the source and shade.

The following is a guide for the selection of the proper shade numbers. These recommendations may be varied to suit the individual's needs.

Welding Operation		Shade Number
Shielded metal — arc welding 1/16, 3/32, 1/8-5/32 inch electrodes		10
Gas-shielded arc welding (nonferrous) 1/16, 3/32, 5/32 inch electrodes		11
Gas-shielded arc welding (ferrous) 1/16, 3/32, 1/8, 5/32 electrodes		12
Shielded metal arc welding: 3/16	7/32,1/4 inch electrodes	12
	5/16, 3/8-inch electrodes	14

Welding Operation	Shade Number
Atomic hydrogen welding	10 – 14
Carbon arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, hp to 1 inch	3 or 4
Medium cutting, 1 inch to 6 inches	4 or 5
Healy cutting, 6 inches or over	5 or 6
Gas welding (light) up to 1/8 inch	4 or 5
Gas welding (medium) 1/8 - 1/2 inch	5 or 6
Gas welding (heavy) 1/2 inch or over	6 or 8

NOTE:
In gas welding or oxygen cutting where the torch produces a high yellow light, it is desirable to use a filter or lens that absorbs the yellow or sodium line in the visible light of the operation. All filter lenses and plates shall meet the test for transmission of radiant energy prescribed in ANSI Z87.1 — 1968 — American National standard Practice for Occupational and Educational Eye and face Protection. Where the work permits the welder to be enclosed in an individual booth painted with a finish of low reflectivity such as zinc oxide (an important factor for absorbing ultraviolet radiation) and lamp black, or shall be enclosed with noncombustible screens similarly painted. Booths and screens shall permit circulation of air at floor level. Workers or other persons adjacent to the welding areas shall be protected from the rays by noncombustible or flameproof screens or shields or shall be required to wear appropriate goggles.

Adequate hand protection and clothing must be used to protect the body from welding hazards.

Cleaning Compounds

In the use of cleaning materials, because of their possible toxicity or flammability, appropriate precautions such as manufacturer instructions shall be followed.

- Degreasing and other cleaning operations involving chlorinated hydrocarbons shall be so located that no vapors from these operations will reach or be drawn into the atmosphere surrounding any welding operation.

Oxygen cutting, using a chemical flux, iron powder or gas shielded arc cutting for stainless steel shall be performed using mechanical ventilation adequate to remove the fumes generated.

Cylinders

This section applies to all compressed gas cylinders. Employees shall be trained in the unique hazards relative to each gas (fuel, oxygen, nitrogen, argon, etc.)

Compressed gas cylinders shall be DOT-approved and legibly marked near the shoulder of the cylinder for the purpose of identifying the gas content with either the chemical or trade name of the gas.

- All compressed gas cylinder connections must comply with ANSI B57. 1-1965 Standards.
- Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried.

All cylinders shall be kept away from sources of heat and from radiators and piping systems that may be used for grounding purposes. Cylinders and cylinder valves including couplings and regulators shall be kept free from oily or greasy substances and must not be handled with gloves or rags in the same condition.

Visual and other inspections shall be conducted to determine that compressed gas cylinders are in a safe condition. Cylinders must be equipped with the correct regulators. Regulators and cylinder valves should be inspected for grease, oil, dirt and solvents.

Stored oxygen cylinders shall be kept at least 20 feet from the fuel gas cylinders or combustible materials, especially oil or grease, or separated by a non-combustible barrier at least 5 feet high with a fire rating of at least one-half hour. All empty cylinders shall have closed valves. Valve protection caps shall always be in place and hand-tight except when cylinders are in use or connected for use.

Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

Fuel gas cylinders stored inside buildings shall be limited to a total capacity of 2000 cubic feet (300 pounds) of liquefied petroleum gas, except for those in actual use or attached ready for use.

All acetylene cylinders shall be stored valve-end up.

When a cylinder cap cannot be removed by hand, cylinder shall be tagged "Do Not Use" and returned to the designated storage area for return to vendor. Only tools provided by the supplier should be used to open and close cylinder valves.

Assigned storage spaces shall be located where cylinders cannot be knocked over or damaged by falling objects or subject to tampering by unauthorized persons. Storage areas for full and empty cylinders must be designated and labeled. Cylinders should be stored in assigned places away from elevators, stairs, or gangways.

Cylinders should be marked as "MT" and dated when empty. Never mix gases in a cylinder and only professionals should refill cylinders. Empty cylinders must be handled as carefully as full cylinders.

Leaking cylinders should be moved to an isolated, well-ventilated area, away from ignition sources. Soapy water should be used to detect leaks. If the leak is at the junction of the cylinder valve and cylinder, do not try to repair it. Contact the supplier and ask for response instructions.

- Back flow protection shall be provided by an approved device that will prevent oxygen from flowing into the fuel-gas system or fuel from flowing into the oxygen system.
- An approved device that will prevent flame from passing into the fuel-gas system shall provide flashback protection.
- An approved pressure-relief device set at the appropriate pressure shall provide backpressure protection.
- Hoses and connections should be inspected regularly for damage. Hoses should be stored in cool areas and protected from damage.

Special care must be taken when transporting gas cylinders:

- Cylinders must be secured with valve cap installed.
- Cylinders shall not be lifted by the valve protection caps, the regulators must be removed and cylinders shall not be dropped or permitted to strike each other.
- Removed regulators must be carried in the cab of the vehicle.
- Cylinders shall not be tampered with nor should any attempt be made to repair them.
- They shall be handled carefully - rough handling, knocks, or falls are liable to damage the cylinder, valve or safety device and cause leakage.

Safety devices shall not be tampered with.
No compressed gas shall be used to power pneumatic tools or for area blow down.

A site assessment shall be performed prior to using any compressed gas (welding or otherwise). Anything unusual shall be documented.

Warning signs alerting hazardous gases are in use shall be used where appropriate, especially in areas of high traffic. Barricades shall also be used, if necessary. Barricades shall provide a minimum of 3' safe zone.

Arc Welding and Cutting
All personnel operating, installing, and maintaining welding equipment shall be qualified or trained to operate and maintain such equipment.

- All workmen assigned to operate or maintain equipment shall be familiar with and electrical welding equipment shall be chosen for safe operation and comply with applicable Requirements for Electrical Arc Welding Standards to include: 29 CFR 1910.254, 29 CFR 1910.252 (a), (b) and (c) and if gas shielded arc welding is done the must be familiar with the American Welding Society Standard A6-1-1966.
    - Arc welding equipment must be designed to meet conditions such as exposure to corrosive fumes, excessive humidity, excessive oil vapor, flammable gasses, abnormal vibration or shock, excessive dust and seacoast or shipboard conditions.
    - It shall be operated at recommended voltage in accordance to the manufacturer recommendations.
    - All leads shall be periodically inspected and replaced if insulation is broken or splices are unprotected.
    - Leads shall not be repaired with electrical tape.

- All ground connections shall be checked to determine that they are mechanically strong and electrically adequate for the required current.

A disconnecting switch or controller shall be provided at or near each welding machine along with over current protection.

All direct current machines shall be connected with the same polarity and all alternating current machines connected to the same phase of the supply circuit and with the same polarity.

- To prevent electrical contact with personnel, all electrode holders shall be placed where they do not make contact with persons, conducting objects or the fuel of compressed gas tanks.
- All cables with splices within 10 feet of the holder shall not be used.

If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed.

If an object to be welded or cut cannot be moved and if all the hire hazards cannot be removed, then guards shall be used to confine the heat sparks and slag and to protect the immovable fire hazards.

Resistance Welding

All personnel operating, installing, and maintaining welding equipment shall be qualified or trained to operate and maintain such equipment.

- Voltage, interlocks, guarding, grounding and shields shall be in accordance with manufacturer recommendations.
- Precautions such as flash guarding, ventilation and shields shall be provided to control flashes, toxic elements and metal fumes.

If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed.

Oxygen Fuel Gas Welding and Cutting:

Only approved apparatuses such as torches, regulators or pressure-reducing valves, setting generators and manifolds shall be used:

- Mixtures of fuel gases and air or oxygen may be explosive and must be guarded against.
- All hoses and hose connections shall comply with the Compressed Gas Association and Rubber Manufacturers' Associations' applicable standards.
- Workers in charge of the oxygen or fuel-gas supply equipment, including generators, shall be instructed and judged competent by the M. G. Newell Corporation before being left in charge.

If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed.

Fire Watch Requirements

A fire watch shall be under these conditions as a minimum:

- Locations where other than a minor fire might develop.
- Combustible materials are closer than 35 feet to the point of operation.
- Combustibles that are 35 feet or more away but are easily ignited.
- Wall or floor openings within a 35 feet radius of exposed combustible materials.
- Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.

Fire watch personnel MUST be maintained at least a half an hour after welding or cutting operations have been completed.

First Aid Equipment

First aid equipment shall be available at all times. All injuries shall be reported as soon as possible for medical attention. First aid shall be rendered until medical attention can be provided.

Training

Training shall include:

- Position Responsibilities
- Cutters, welders and their supervisors must be suitably trained in the safe operations of their equipment and the safe use of the process.
- Fire Watch Responsibilities - specifically, the fire watch must know:
    - That their ONLY duty is Fire Watch.
    - When they can terminate the watch.
    - How to use the provided fire extinguisher(s).
    - Be familiar with facilities and how to activate fire alarm, if fire is beyond the incipient stage.
    - Operator Responsibilities
    - Contractor Responsibilities
    - Documentation requirements
    - Respirator Usage requirements
    - Fire Extinguisher training.

All training will be documented.

Purpose

The purpose of the program is to prescribe rules and establish minimum requirements for the construction, care, and use of the common types of ladders.

All ladders that are purchased and placed into service; or, any ladders that are engineered, manufactured and installed on any M. G. Newell Corporation equipment shall follow the requirements set forth by this program.

Scope

This program is applicable to all employees who may utilize ladders. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Definitions

Ladder - an appliance usually consisting of two side rails joined at regular intervals by cross- pieces called steps, rungs, or cleats, on which a person may step in ascending or descending.

Stepladder - a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the overall length of the ladder measured along the front edge of the side rails.

Single ladder - a non-self-supporting portable ladder, nonadjustable in length, consisting of but one section. The overall length of the side rail designates its size.

Extension ladder - a non-self-supporting portable ladder adjustable in length. It consists of two or more sections traveling in guides or brackets so arranged as to permit length adjustment. Its size is designated by the sum of the lengths of the sections measured along the side rails.

Fixed ladder - a ladder permanently attached to a structure, building, or equipment.

Individual-rung ladder - a fixed ladder each rung of which is individually attached to a structure, building, or equipment.

Cage - a guard that may be referred to as a cage or basket guard, which is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

Key Responsibilities

Project Managers and Site Managers

- Project Managers and Site Managers are responsible for ensuring that all employees, and/or contractors have been trained in the use and inspection of ladders in accordance with the manufactures guidelines.
- Project Managers and Site Managers are responsible for ensuring that all employees and contractors are aware that if an inspection discovers a defect, the ladder shall not be used and taken out of service.

Employees

- Employees shall inspect ladders prior, during and at the completion of each use to ensure the condition of the ladder and the safety of its occupants.
- Employees are responsible for following this program and reporting any damage or repairs that may be needed to their supervisor.

Procedure

Inspection, Care and Safe Work Practices of Ladders

Inspection

Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.

- Ladder rungs must be uniformly spaced or meet OSHA/ANSI specifications. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.
- Portable and fixed ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired
- If a ladder is tipped over, it shall be inspected by a competent person for side rail dents or bends, or excessively dented rungs; check all rung to side rail connections; check hardware connections; check rivets for shears.
- Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used; improvised repairs shall not be made.
- All wood parts shall be free from sharp edges and splinters; sound and free from accepted visual inspection from shake, or other irregularities.

Care

Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play.

Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.

Frayed or badly worn rope shall be replaced. Safety feet and other auxiliary equipment shall be kept in good condition to ensure proper performance.

Rungs shall be kept free of grease and oil.

Ladders shall be stored in a well-ventilated area in a manner to prevent sagging and warping.

Ladder Safe Work Practices

Ladders shall be used only for the intended purpose for which they were designed.

Extension ladders shall be secured at the top or held by another person at the base.

The footing of the ladder shall be placed on a stable and level surface.

Extension ladders shall be placed at a 4:1 ratio. Ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and the top support.

When ladders are not able to be extended then the ladder shall be secured at its top to a rigid support that will not deflect.

Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.

Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.

Ladders shall not be used by more than one person at a time.

Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.

If a ladder is used in a high traffic area, barricades shall be placed to avoid accidental displacement due to collisions.

Do not stand on the top two rungs of top of step ladders.

On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:

Size of Ladder (feet)	Overlap (feet)
Up to and including 36’	3
Over 36 up to and including 48’	4
Over 48 up to and including 60’	5

Ladders shall extend a minimum of 3 feet above top of upper landing surface. The ladder side rails shall extend at least 3 feet (.9m) above the upper landing surface. When ladders are not able to be extended then the ladder shall be secured at its top to a rigid support that will not deflect.

The employee shall maintain a three (3)-point grip on the ladder at all times and carry tools/equipment on a belt or hoist up. Do not carry anything in the hands that could cause injury in case of fall.

The employee shall face the ladder while ascending or descending.

The bracing on the back legs of stepladders is designed solely for increasing stability and not for climbing.

The ladder shall not be moved while occupied.

Portable Ladders
Stepladders shall not be longer than 20 feet. Single ladders shall not be longer than 30 feet.

A two-section extension ladders shall not be longer than 60 feet. All ladders of this type shall consist of two sections, one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised and lowered.

Keep all ladders at least ten (10) feet away from power lines.

Ladders shall have the correct load capacity for the task and not be loaded beyond the maximum intended load for which they were built nor in excess of the manufacturer's rated capacity. Weight includes the combined weight of the climber and his tools/equipment. Ladders are rated as the following:

- I (holds 250 Ibs)
- I-A (holds 300 Ibs)
- II (holds 225 Ibs)
- III (holds 200 Ibs)

Only Type 1 and 1A are allowed to be used on construction sites.

Fixed Metal Ladders

Ladders shall be constructed to withstand a minimum of 200 pounds.

All metal rungs shall have a minimum diameter of ¾ inches and wooden rungs shall have a minimum diameter of 1 1/8 inches.

Rungs shall not be more than 12 inches apart and shall be uniform throughout the length of the ladder.

Rungs shall be a minimum length of 16 inches and provide protection so a foot cannot slip off the end.

Rungs shall have a minimum of 7 inches between itself and the structure behind it.

A fall restraint system must be provided for all fixed ladders greater than six feet in length.

- A Cage is required when the fixed ladder is at least twenty feet tall.
- Cages on fixed ladders shall not begin at a point less than 7 feet nor greater than 8 feet from the walking surface below the cage.
- Cages shall provide a clear width of 15 inches in each direction of the rung's centerline.
- Cages shall not extend less than 27 inches, but not greater than 28 inched from the centerline of the rung.
- A climbing fall restraint system may be substituted for a ladder cage.

Purpose

Each M. G. Newell Corporation location shall have an Emergency Action Plan, appropriate to the hazards of the workplace, in order to respond to an emergency that may require rescue or evacuation.

Each Emergency Action Plan shall be prepared to reflect all known probable emergency conditions which may arise from within the workplace and from adjacent workplaces, the minimum of which will include fire or other emergencies.

An emergency action plan must be in writing, kept in the workplace and available to employees for review. However, if a site has 10 or fewer employees the plan may be orally to employees.

Emergency Response Planning, Issuing and Annual Review Guidelines

Emergency Procedures shall be issued and discussed with all new/transferred personnel upon arrival for assignment.

Emergency Action Plans shall be established, implemented, reviewed, maintained and updated annually in conjunction with:

- Client emergency services department requirements.
- M. G. Newell Corporation safety staff and management.
- The requirement to ensure the plan is up to date to reflect current circumstances at the workplace.

The plan is to be reviewed before the job and when conditions warrant and should be used for routine and non-routine emergencies as well as changes in operation, and products or services which warrant new emergencies situations.

Additionally, a review of the emergency action plan should occur with employees:

- When the plan is developed or the employee is assigned initially to a job.
- When the employee's responsibilities under the plan change.
- When the plan is changed.

Evacuation Procedures Planning

Procedures for emergency evacuation shall include type of evacuation and exit route assignments. The individual site evacuation procedure shall be appropriate to the risk must be developed and implemented to:

- Notify staff, including the first aid attendant, of the nature and location of the emergency,
- Evacuate employees safely,
- Check and confirm the safe evacuation of all employees,
- Notify the fire department or other emergency responders, and
- Notify adjacent workplaces or residences which may be affected if the risk of exposure to a substance extends beyond the workplace. Notification of the public must be in conformity with the requirements of other jurisdictions, including provincial and municipal agencies.

List of Potential Emergencies

Each location shall conduct a risk assessment for hazards posed by potential hazardous substances from accidental release, fire or other such emergencies that could cause an evacuation or rescue and list the potential emergencies for M. G. Newell Corporation operations. Procedures for each of these potential emergencies shall be contained within the Emergency Action Plan. Examples include:

- Fire
- Severe Weather
- Gas Leaks/Chemical Spills
- Bomb Threats
- Medical Emergencies
- Explosion
- Workplace Violence

Guidance Procedures for Potential Emergencies

Fire

- Warn others in the immediate area. Notify the appropriate emergency response personnel by phone or radio and pull the nearest fire alarm if present.
- If nearby staff have been trained, and it is safe to do so, fight the fire using a portable fire extinguisher. Remember, if in doubt get out.
- Evacuate the premises via the nearest exit and proceed to the nearest Emergency Assembly Area.
- Re-enter only after the Emergency Coordinator has given an ALL CLEAR.

Severe Weather

- Locate Emergency Assembly Area that will provide adequate protection for severe weather conditions.
- Notify all supervisors and subcontractors of the need to evacuate to the Emergency Assembly Area.
- Ensure that all supervisors have assured accountability for all their personnel.

Gas Leaks/Chemical Spills - Upon smelling or noticing a gas leak or unusual vapors, or a chemical spill:

- Pull fire alarm (if present) or sound warning and evacuate the premises via the nearest exit
- Proceed to the Emergency Assembly Area
- Contact local emergency response personnel by phone or radio
- Re-enter only after the Emergency Coordinator has given an ALL CLEAR.

If employees are required to control a release of a hazardous substance, to perform cleanup of a spill, or to carry out testing before re-entry, M. G. Newell Corporation shall provide:

- Adequate written safe work procedures and documented training.
- Appropriate personal protective equipment which is readily available to employees and is adequately maintained, and

- Material or equipment necessary for the control and disposal of the hazardous substance.

Bomb Threats

- If a threat is received by phone, mail or other means, get as much information as possible.
- If the threat is received by phone, try to keep the person on the line for as long as possible. Do not hang up the phone, even after the call has been terminated.
- Contact local emergency response personnel by phone or radio.
- If a suspicious device is identified, evacuate the immediate area and notify local emergency response personnel.

Medical Emergencies

- Call for assistance by phone or radio. Give the exact location and details of the medical emergency.
- If qualified, provide basic first aid, and keep the person comfortable. Do not move the person. Do not leave him/her unattended.
- Arrange for emergency medical transportation based on the medical planning portion of the site's Emergency Action Plan.

Explosions

- Get down on the floor, take shelter under tables or desks, and protect your face and head against flying glass and debris.
- Once it is safe to do so, evacuate the premises via the nearest exit and proceed to the nearest Emergency Assembly Area.
- Re-enter only after the Emergency Coordinator has given an ALL CLEAR.

Workplace Violence

- Notify security immediately by phone or radio and report the occurrence.
- Do NOT attempt to physically intervene. Protect yourself first at all costs.

Emergency Response Equipment

Listing of Types of Emergency Equipment

Each site Emergency Action Plan shall identify, list the locations of and provide operational procedures for types of emergency equipment. For off-site locations, available emergency equipment should be identified and reviewed with workers prior to commencing work activities. Examples include:

- Areas with an audible alarm and a fire hose cabinet.
- Emergency lighting, exit doors, dampers and fire stop flaps.
- First aid kits located throughout the facility and in vehicles.
- Portable fire extinguishers being located throughout the facility and clearly marked.
- Only authorized and trained personnel will operate emergency equipment.

Inspection & Maintenance Records

Maintenance records must be kept, including but not limited to the name of manufacturer, the type of

equipment, the date put into service, when and for what purpose the equipment has been used, the date of the last inspection and name of the inspecting person, any damage suffered, and the date and nature of any of maintenance on emergency response equipment.

Ropes and associated equipment must be inspected visually and physically by qualified employees after each use for rescue, evacuation or training purposes.

The M. G. Newell Corporation designated representative will perform and maintain the M. G. Newell Corporation Emergency Inspection Checklist Form on a monthly basis. The checklist shall be maintained for retention in active files for two years.

Media Response Plan

M. G. Newell Corporation employees must not be interviewed by anyone unless Management has given prior approval. In most cases Management will have an attorney present for such interviews.

All media requests should be referred to the M. G. Newell Corporation Chief Operating Officer. Unless requested to do so by Management, other M. G. Newell Corporation personnel are not to give interviews or make statements to the media. Management prefers that families of personnel involved in an incident receive initial notification from a M. G. Newell Corporation representative and not the media.

Training

M. G. Newell Corporation shall ensure training for Emergency Action Plan is delivered, documented and prepares the staff and facility for emergency conditions. M. G. Newell Corporation will designate and train employees to assist in a safe and orderly evacuation of other employees. Requirements include:

- All employees must be given adequate instruction in the fire prevention and emergency evacuation procedures applicable to their workplace.
- The designated site representative shall provide the Emergency Action Plan orientation to all new/transferred personnel before they begin work.
- All personnel shall receive a review/update orientation at least annually, or whenever any new/revised information is to be provided.
- Employees expected to perform duties under the Emergency Action Plan will be trained prior to assuming their roles. This will include simulated rescue or evacuation exercises and regular retraining, appropriate to the type of rescue or evacuation being provided, and training records must be kept.

Location and Use of Emergency Facilities

M. G. Newell Corporation shall ensure each Emergency Action Plan lists the location and how to use emergency facilities for each work site. For off-site locations, outside services that can provide assistance in the event of an emergency should be identified and reviewed with workers prior to commencing work activities. A list shall be posted in a conspicuous area showing local emergency facilities and how to contact. Examples include:

- Client Emergency Response Department (Initial Responder for All Emergencies If Applicable)
- Local Police, Local Hospital, Poison Center (Poison Response) 911, etc.

Fire Protection & Response

M. G. Newell Corporation shall ensure each Emergency Action Plan provides fire protection and response planning within each site Emergency Action Plan and is utilized during all phases of work. As a minimum, all shall include the following:

Protection

- Smoking is not permitted except in designated 'SMOKING" areas.
- Facilities shall be designed and maintained in accordance with local fire code and regulations.
- Portable fire extinguishers shall be stationed, inspected and maintained in accordance with local fire code and regulations. M. G. Newell Corporation personnel shall be trained in their use.
- Flammable and combustible liquids shall be properly stored.
- Employees shall report all fire safety issues to their immediate supervisor.
- Facilities shall be inspected by use of the M. G. Newell Corporation Emergency Inspection Checklist

Response

In the event of a fire**,** personnel working in facility will adhere to the following procedure for their work area:

- Warn others in the immediate area. Notify the appropriate emergency response personnel by phone or radio and pull the nearest fire alarm if present.
- If nearby staff have been trained, and it is safe to do so, fight the fire using a portable fire extinguisher. Remember, if in doubt get out.
- Evacuate the premises via the nearest exit and proceed to the nearest Emergency Assembly Area.
- Re-enter only after the Emergency Coordinator has given an ALL CLEAR.

Roads are designated as fire lanes. Vehicles can stop there for unloading, but no parking will be allowed.

Alarm & Emergency Communication

Each Emergency Action Plan for M. G. Newell Corporation shall contain methods to address alarms and communications in case of an emergency. For off-site locations, the method of emergency notification should be identified and reviewed with workers prior to commencing work activities.

Alarm System

Each work location must have and maintain a system to alert employees of emergencies. The alarm system shall be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan. For sites with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided all employees can hear the alarm. Each Emergency Response plan will describe how to activate an alarm and what to do after either activating or hearing an alarm.

Personnel responding to any alarm shall avoid complacency. Every alarm should be treated as an actual incident until proven otherwise. Treating and responding to alarms as a routine happening can result in injuries, fatalities and destruction of property.

Communications
M. G. Newell Corporation responders and security use telephones, cell phones and radios in conjunction with emergency response. If employees have any questions about this emergency action plan or their duties in an emergency, they should contact their direct supervisor or the Site Safety Manager.

Information concerning points of contact for emergencies (i.e. fire, medical emergency, etc) will be provided by the superintendent to employees who have responsibilities under this program. This information will be updated on each project.

Evacuation Procedures

At least one employee at each facility must be a first aid/CPR trained to assist injured employees.

Effective communications must be maintained between the employees engaged in rescue or evacuation and support persons.

Procedure for Evacuation

Preparation for Evacuation
Each site Emergency Action Plan shall contain a procedure for evacuation if required.

Evacuation Drills
Evacuation drills shall be conducted at least annually. Before conducting an evacuation drill a pre-drill assessment of the evacuation routes and assembly points shall be conducted. The pre-drill assessment is intended to verify that all egress components (stairs, doors, etc.) are in proper order and that occupants can use them safely.

Coordination Within a Facility
Emergency training and drills should also be coordinated within a M. G. Newell Corporation facility so that key staff are involved in the planning process and are aware of their responsibilities in an emergency as well as during the drill.

Facility management also needs to be informed of the potential for the interruption in productivity and business operations. Alternatives for the continuity of critical operations need to be considered.

Emergency Evacuation Notification and Routes
In the event of an emergency occurring within or affecting the work site, the Emergency Coordinator makes the following decisions and ensures the appropriate key steps are taken:

- Advise all personnel of the emergency.
- Activate the emergency notification sequence to alert the appropriate responders and initiate emergency notification within the building.
- Evacuate all persons to the identified assembly area and account for everyone including visitors and clients.

All personnel will proceed to the primary safe area immediately located at the identified emergency assembly area for their location.

A copy of escape routes shall be posted in all offices, at all alarm stations and at all exits.

Sweep Check by M. G. Newell Corporation Designated Responders

- M. G. Newell Corporation trained responders will establish a pattern that will permit covering the area in the shortest time, with a minimum of backtracking.
- When the evacuation alarm rings, stop work immediately, and conduct a sweep of the area. Ask everyone to leave the premises immediately and proceed to the identified emergency assembly area for their location.
- If you encounter smoke or flame, leave that section immediately, finish your sweep and evacuate the building by activating fire alarm pull stations. Remember, if in doubt get out.
- If anyone refuses to leave, note their name and location, and advise the client emergency services personnel.
- Meet the client emergency services personnel and advise them of your sweep or an area of smoke or flame that you were unable to check. Assist with head count and evacuation if required.
- Ensure that everyone stays at the emergency assembly area until the Emergency Coordinator has given an all clear to re-enter the building.
- In the event of inclement weather, the client will make arrangements to have buses either as temporary shelter or to transport personnel to another location.

Evacuation or Drill Evaluation

Following an evacuation or drill a response review shall be conducted and documented by the M. G. Newell Corporation Emergency Coordinator and lessons learned share with the appropriate responders and staff using the M. G. Newell Corporation Evacuation Report.

M. G. Newell Corporation Emergency Inspection Checklist

Department:	Location:	Date of Inspection:
Inspected by:	Title:	Ext:

	N/A	Yes	No
EGRESS			
Is every means of egress arranged and clearly marked, so that the way to safety is unmistakable at all times?			
Are exits signs lit?			
Are there sufficient exits for the prompt escape of all employees in case of fire or other emergencies?			
Are doors that aren't exits that could be mistaken as one, clearly marked "Not an Exit"?			
Do exit doors swing out?			
Are means of egress at least 28 inches at any point and adequate width for the number of people?			
Are egresses kept clear of obstructions and materials at all times?			
Is there proper lighting for emergency exiting? (i.e. during a power failure)			
Are at least two exits by separate ways of travel available for each occupant?			
Is the minimum width of any exit way no less than 28 inches?			
Are furnishings and decorations so placed that they will not obstruct the exits, the access thereto, or the egress there from, or the visibility thereof?			
Are explosive and highly flammable furnishings or decorations prohibited?			
EMERGENCIES/EVACUATION			
Are evacuation maps posted in readily accessible places?			
Do employees know where their muster point is located?			
Do employees know area hazards, the nearest exit and alternate routes of escape?			
Do employees know the preferred means of reporting emergencies?			
Do employees know the site emergency number(s)?			
Is the site emergency number posted on or by the phone?			
Do employees know what signal indicates evacuation?			
Can all personnel perceive the employee alarm?			
Do employees with special assistance needs been addressed?			
Employees questioned know where the emergency shut off is for the natural gas			

	N/A	Yes	No
FIRE PROTECTION			
Are fire hydrants accessible?			
Are fire hydrants inspected yearly and records maintained to show the date?			
Are control and operating valves locked open or electronically supervised?			
Are fire hoses maintained and periodically tested?			
Are combustible materials kept away from ignition sources?			
Are standpipe and hose system components visually inspected quarterly?			
Is the accumulation of flammable and combustible materials controlled so they do not contribute to fire emergency?			
All product, supplies, merchandise etc not piled within 18" of Sprinkler heads			
No Combustibles within three feet of Hot Water Tank, Space Heaters and/or Electrical panels			
All Compressed Gas Cylinders tied or chained to eliminate tipping			
DETECTION AND ALARM SYSTEMS			
Are detection systems installed and maintained?			
Are all trouble alarms and fire signals investigated?			
Do detection/alarm systems shut down or reverse HVAC systems for smoke control?			
Do detection/alarm systems close smoke or fire doors?			
Do detection/alarm systems activate local alarms?			
Are alarm and PA systems periodically tested?			
PORTABLE FIRE EXTINGUISHERS			
Does everyone know where the nearest fire extinguisher is stored?			
Has the area fire extinguisher been maintenance tested within the last year and tagged to show the date?			
Are fire extinguishers accessible and the proper type for the fire hazard?			
Are employees trained in how to use fire extinguishers?			
Is there a fire extinguisher mounted within 75 ft of any point in an area?			
Are the extinguishers clean and well cared for?			
Is the seal and lock pin in place?			
Clear access to extinguishers? Not blocked			
Is the extinguisher location plainly marked, so as to be visible at a distance?			
Is the extinguisher class marked on the extinguisher?			

	N/A	Yes	No
FIRST AID / MEDICAL SUPPLIES			
Are first aid supplies stocked, clean, accessible and sanitary?			
Are there eye/body wash facilities near injurious corrosive materials?			
Is a person or persons adequately trained to render first aid available in the near proximity to the workplace?			
Are AEDs present and operators trained?			
Condition of First Aid Kits Acceptable			
Are employees/subcontractors familiar with the incident/accident reporting process?			
Do employees/subcontractors know where accident/incident forms are located?			

Date of last inspection of sprinkler system (required yearly) _____

Comment/Actions:

Sample Emergency Action Plan Core Requirements

POTENTIAL EMERGENCIES **(BASED ON HAZARD ASSESSMENT)**	The following are identified potential emergencies: • Fire • List others	
EMERGENCY PROCEDURES	In the event of a fire occurring within or affecting the work site, the Emergency Coordinator (or deputy) makes the following decisions and ensures the appropriate key steps are taken: • advise all personnel • pull the fire alarm to alert the nearest fire station and initiate all fire alarms within the building • evacuate all persons to a safe point in the assembly area and account for everyone including visitors and clients	
LOCATION OF EMERGENCY EQUIPMENT	Emergency equipment is located at: • Fire Alarm – List • Fire Extinguisher – List • Fire Hose - List	
WORKERS TRAINED IN THE USE OF EMERGENCY EQUIPMENT	(1) _____ (2) _____ (3) _____ (4) _____	
EMERGENCY RESPONSE TRAINING REQUIREMENTS	Type of Training • Use of fire extinguishers • Practice fire drills	Frequency • Orientation and annually • At the call of site management
LOCATION AND USE OF EMERGENCY FACILITIES	The nearest emergency services are located at: • List facilities	
FIRE PROTECTION REQUIREMENTS	• List all site fire protection requirements.	

ALARM AND EMERGENCY COMMUNICATION REQUIREMENTS	• Pulling the fire alarm automatically alerts the fire department and initiates an alarm within the building • The fire alarm signal is (describe sound and pattern)
FIRST AID	First aid supplies are located at: • List First Aiders are: • List all names Transportation for ill or injured workers is by (describe). The contact number or radio channel is (describe).
PROCEDURES FOR RESCUE AND EVACUATION	In case of fire: • Advise all personnel • Pull the fire alarm • Evacuate all persons to a safe point in the staff parking lot and account for everyone including visitors and clients • Assist ill or injured workers to evacuate the building • Provide first aid to injured workers if required • Call emergency response personnel to arrange for transportation of ill or injured workers to the nearest health care facility if required.
DESIGNATED RESCUE AND EVACUATION WORKERS	The following workers are trained in rescue and evacuation (or describe client rescue organization): (1)_____ (2)_____ (3)_____ (4) _____
Completed on: _____ Signed: _____	

Purpose

The purpose of this program is to establish requirements for the safe operation and use of Powered Industrial Trucks.

Scope

This program applies to all M. G. Newell Corporation employees who operate a Powered Industrial Truck in the scope of their job duties and assignments. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent. *NOTE*: Only trained and certified operators, including supervisors, are allowed to operate forklifts and industrial trucks. M. G. Newell Corporation shall certify all authorized employees regarding competency on all types of equipment.

Definitions

Authorized Employee – A person, at least 18 years of age and who has completed the M. G. Newell Corporation's required safety training for the safe operations of forklifts.

Forklift (Powered Industrial Truck) – Any mechanical device used for the movement of supplies, material or finished a product that is powered by an electric motor or an internal combustion engine.

Key Responsibilities

Project Manager/Site Manager

- Shall ensure that each powered forklift operator is competent to operate a forklift safely, as demonstrated by the successful completion of the training and evaluation program.
- Shall ensure that all forklifts are inspected before each shift and all repairs are made before the forklift is operated.

Employees

- Shall be current on applicable training.
- Operate forklift in accordance to the forklift standards and manufacture requirements.
- Inspect forklift at the start of shift, and remove from service if defects are found until they are corrected.
- Operate forklift in a safe manner.

Procedure

General

All approved forklifts shall have a manufactures identification plate attached showing all specifications of the forklift and that the forklift is accepted by a nationally recognized testing laboratory.

Modifications and additions, that affect capacity and safe operation, shall not be performed without manufacturer's prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed reflect the modification or addition.

If the forklift is equipped with front-end attachments other than factory installed attachments, the supervisor shall ensure that the forklift is marked to identify the attachments and show the approximate weight of the forklift and attachment combination at maximum elevation with load laterally centered.

The operator shall see that all nameplates and markings are in place and are maintained in a legible condition.

All forklifts shall be equipped with safety seat belts. All forklifts shall be equipped with a horn, backup alarm, beacon light, headlights and taillight.

Safety Guards
Forklifts shall be fitted with an overhead rollover cage, as per manufactures specifications.

If the type of load presents a hazard to the operator, the forklift shall be equipped with a vertical load backrest extension, as per manufactures specifications.

Training
Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee) and evaluation of the operator's performance in the workplace.

All operator training and evaluation shall be conducted by authorized persons who have the knowledge, documented training, and experience to train powered industrial truck operators and evaluate their competence.

Selected employees who have been trained shall receive refresher training be evaluated, at a minimum, every three years.

Training shall include the following topics, except in topics for locations where they are not applicable to safe operation of the truck due to type of equipment or facility conditions.

1. Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate,
2. Differences between the truck and the automobile,
3. Truck controls and instrumentation: where they are located, what they do, and how they work,
4. Engine or motor operation,
5. Steering and maneuvering,
6. Visibility (including restrictions due to loading),
7. Fork and attachment adaptation, operation, and use limitations,
8. Vehicle capacity,
9. Vehicle stability,
10. Any vehicle inspection and maintenance that the operator will be required to perform,
11. Refueling and/or charging and recharging of batteries,
12. Operating limitations,
13. Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate,
14. Surface conditions where the vehicle will be operated,

15. Composition of loads to be carried and load stability,
16. Load manipulation, stacking, and unstacking,
17. Pedestrian traffic in areas where the vehicle will be operated,
18. Narrow aisles and other restricted places where the vehicle will be operated,
19. Hazardous (classified) locations where the vehicle will be operated,
20. Ramps and other sloped surfaces that could affect the vehicle's stability,
21. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust,
22. Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation, and
23. The requirements of CFR 1910.178 (Powered Industrial Trucks).

Retraining is required when employee performs the equipment in an unsafe manner, there is an incident or a different vehicle type is put in service or changes in conditions.

Certification
The trainer shall certify in writing that each operator has been trained and evaluated as required.

The certification shall include the name of the operator, the date of the training, the date of the evaluation and the identity of the person(s) performing the training and/or evaluation.

Operations
General

- All operators shall wear a safety seat belt when operating a forklift.
- Forklifts shall not be driven up to anyone standing in front of a bench or other fixed object.
- No person shall be allowed to stand or pass under the elevated portion of any forklift, whether loaded or empty.
- Unauthorized personnel shall not be permitted to operate forklifts.
- No riders or passengers are permitted.
- It is prohibited for arms or legs to be placed between the uprights of the mast or outside the running lines of the forklift.
- When a forklift is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set.
- Wheels shall be blocked if the forklift is parked on an incline.
- A forklift is unattended when the operator is 25 ft. or more away from the vehicle, which remains in view, or whenever the operator leaves the forklift and it is not in view.
- When the operator of a forklift is dismounted and within 25 ft. of the forklift still in view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.
- A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car.
- Forklifts shall not be used for opening or closing freight doors.
- Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading.

- Fixed jacks may be necessary to support a semi trailer during loading or unloading when the trailer is not coupled to a tractor.
- The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven onto.
- There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.
- An overhead guard (cages) shall be used as protection against falling objects.
- An overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
- Fire aisles, access to stairways, and fire equipment shall be kept clear.

Traveling

- The operator shall slow down and sound the horn at cross isles and other locations where vision is obstructed.
- If the load being carried obstructs forward view, the operator shall be required to travel with the load trailing.
- The operator shall be required to look in the direction of, and keep a clear view of the path of travel.
- Grades shall be ascended or descended slowly.
- When ascending or descending grades in excess of 10 percent, loaded forklifts shall be driven with the load upgrade.
- On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.
- Under all travel conditions the forklift shall be operated at a speed that will permit it to be brought to a stop in a safe manner.
- Stunt driving and horseplay are prohibited.
- The operator shall slow down for wet and slippery floors.
- Dock board or bridge plates shall be properly secured before they are driven over.
- Dock board or bridge plates shall be driven over carefully and slowly and their rated capacity never exceeded.
- While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion.
- Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

Loading

- Only stable or safely arranged loads shall be handled.
- Caution shall be exercised when handling off-center loads, which cannot be centered.
- Only loads within the rated capacity of the forklift shall be handled.
- Forklifts equipped with attachments shall be operated as partially loaded forklifts when not handling a load.

- A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.
- Extreme care shall be used when tilting the load forward or backward, particularly when high tiering.
- Tilting forward with load engaging means elevated shall be prohibited except to pick up a load.
- An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack.
- When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

Operation of the Truck

- If at any time a forklift is found to be in need of repair, defective, or in any way unsafe, the forklift shall be taken out of service until it has been restored to safe operating condition.
- Fuel tanks shall not be filled while the engine is running.
- Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.
- When fueling with Liquefied Petroleum Gas (LPG), precautions and handling requirements set forth in the “Safe Handling of LPG” program shall be followed.
- No forklift shall be operated with a leak in the fuel system.
- Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.
- Operator must verify trailer chocks, supports, and dock plates are secured prior to loading/unloading.

Maintenance of Forklifts

- Only authorized personnel shall perform maintenance, and make repairs.
- Those repairs to the fuel and ignition systems of forklifts, which involve fire hazards, shall be conducted only in locations designated for such repairs.
- Forklifts in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.
- Only parts equivalent with those used in the original design shall replace all parts of any forklift requiring replacement parts.
- Forklifts shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts.
- Additional counter weighting of fork trucks shall not be done unless approved by the truck manufacturer.
- Forklifts shall be inspected before being placed in service, and shall not be placed in service if the inspection shows any condition adversely affecting the safety of the forklift.
- Inspection shall be made at least daily – prior to each shift. (visual – non documented) Inspection items shall be posted on each forklift. Operators must insure the vehicle is safe prior to operating.
- Where forklifts are used on a round-the-clock basis, they shall be inspected before each shift.

- Defects when found shall be immediately reported to the supervisor, and corrected before operating the forklift.
- When the temperature of any part of any forklift is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the forklift shall be removed from service and not returned to service until the cause for such overheating has been eliminated.
- Forklifts shall be kept in a clean condition, free of lint, excess oil, and grease.
- Noncombustible agents, where at all possible, shall be used for cleaning trucks.
- Low flash point (below 100 degrees F.) solvents shall not be used.
- High flash point (at or above 100 degrees F.) solvents may be used if precautions regarding toxicity, ventilation, and fire hazard are mitigated with the agent or solvent used.

FORKLIFT EVALUATION

EMPLOYEE: _____ DATE: _____

EVALUATOR: _____

TYPE OF FORKLIFT USED DURING EVALUATION:

□ _____ □ _____

□ _____ □ _____

FORMAL INSTRUCTION ON FORKLIFT SAFETY:

□ Attended formal training and passed written exam

ORIENTATION CHECKLIST:

□ Review of operator manual

□ Familiarity with controls

□ Properly starting the forklift

□ Approaching a load

□ Lifting a load

□ Moving a load

□ Depositing a load

□ Shutting down the forklift

□ Review of the load chart located on the forklift

□ Company safety rules that apply to operation of the forklift

Comments: _____

_____

PURPOSE

To provide guidance to employees engaged in operations requiring entry into confined spaces.

Scope

Applies to all M. G. Newell Corporation employees who may be required to enter confined spaces.

Definitions:

A. "Attendant" means an individual stationed outside the permit required confined space that is trained as required by this standard and who monitors the authorized entrants inside the permit required confined space. An attendant may not monitor more than one permit space at a time. An attendant is required for all permit required confined space entries.

B. "Authorized Entrant" means an employee who is authorized by the employer to enter a permit required confined space. Authorized entrants may rotate duties, serving as attendants if the permit program and the entry permit so state. Any properly trained person with the authority to authorize entry by other persons may enter the permit space during the term of the permit provided the attendant is informed of that entry.

C. "Entry" means that when the entrant's face breaks the plane of the opening and the entrant is breathing the atmosphere of the permit space.

D. "Entry permit" means the written or printed document established by the employer, the content of which is based on the employer's hazard identification and evaluation for that confined space (or class or family of confined spaces if a number of space may contain similar hazards) and is the instrument by which the employer authorizes his or her employees to enter that permit required confined space. The entry permit: Defines the conditions under which the permit space may be entered; states the reason(s) for entering the space; the anticipated hazards of the entry; for entries where the individual authorizing the entry does not assume direct charge of the entry, lists the eligible attendants, entrants, and the individuals who may be in charge of the entry; and establishes the length of time (not to exceed one year) for which the permit may remain valid.

E. "Entry permit system" means the employer's written procedures for preparing and issuing permits for entry and returning the permit space to service following termination of entry, and designates by name or title the individuals who may authorize entry.

F. "Hazardous atmosphere" means an atmosphere that exposes employees to a risk of death, incapacitation, injury or acute illness from one or more of the following causes:

1. A flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);

2. An airborne combustible dust at a concentration that obscures vision at a distance of five feet (1.52 m) or less;

3. An atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;

4. An atmospheric concentration of any substance for which a permissible exposure limit is published in Subpart Z of 29 CFR Part 1910 and could result in employee exposure in excess of its permissible limit(s). [When an air contaminant for which OSHA has not determined a permissible exposure limit may be present in the permit space atmosphere, OSHA recommends employers consult other sources of information, such as Material Safety Data Sheets which comply with the Hazard Communication Standard, 1910.1200, for guidance in establishing the acceptable environmental conditions for entry by their employees.]

5. Any atmospheric condition recognized as immediately dangerous to life or health.

G. Non-permit confined space means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or physical harm.

H. "Not-permitted condition" means any condition or set of conditions whose hazard potential exceeds the limits stated in the entry permit.

I. "Permit required confined space" means an enclosed space which,

1. Is large enough and so configured that an employee can bodily enter and perform assigned work;

2. Has limited or restricted means for entry or exit (some examples are tanks, vessels, silos, storage bins, hoppers, vaults, pits, crawl spaces, and diked areas;

3. Is not designed for continuous employee occupancy; and

4. Has one or more of the following characteristics:

a. Contains or has a known potential to contain a hazardous atmosphere;

b. Contains a material with the potential for engulfment of an entrant;

c. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; or,

d. Contains any other recognized serious safety or health hazard.

J. "Qualified Person" means a person designated by the employer as being capable (by education and/or specialized training) of anticipating, recognizing, and evaluating employee exposure to hazardous substances or other unsafe conditions in a confined space.

PROCEDURES FOR PERMIT REQUIRED CONFINED SPACES:

A. Identify Confined Spaces

Permit Required Confined Spaces will be identified by supervisors and marked with signs stating "Danger-Permit Required Confined Space-Do Not Enter".

B. Precautions Before Entry

Before employees are permitted to enter a confined space, the following requirements shall be met.

Inspection and Tests

a. Before work begins, a qualified person should select an emergency medical facility near the work site and ensure that all workers on site are familiar with the procedures for contacting that facility.

b. A qualified person should determine the type of product the confined space previously contained, as well as the indicated amount of sludge, residual product, or other contaminants within it, and the physical condition of the confined space itself.

c. A qualified person should make a survey of the surrounding area, including atmospheric testing, if appropriate, to determine whether it is safe to enter the area.

d. Entry into a confined space should not take place until initial testing of the atmosphere has been completed from the outside. Tests performed should include, as a minimum, those for oxygen content, flammability, and toxic contaminants. Additional tests should be selected and performed to the satisfaction of the qualified person. Such additional tests shall be made in a location that will be representative of the worst-case conditions that might be anticipated. All tests should be repeated as often as necessary to assure safety because changing conditions can result in changing atmospheric concentrations. Employees may request additional tests if they so desire.

e. All test results should be recorded, shared with all participants in the entry, and posted on the permit. The permit must be posted at the work site during the confined space entry.

f. Entry into a confined space for any type of work should not take place when tests indicate the concentration of flammable gases in the atmosphere is greater than 10 percent of the LEL.

g. Entry into a confined space for any type of work should not take place when tests indicate the concentration of oxygen is less than 19.5 percent or greater than 23.5 percent.

h. Entry into a confined space containing toxic contaminants in concentrations at or above the threshold limit value (TLV) should be permitted only when personal protective equipment appropriate for the specific contaminants is provided to all participating employees.

i. Entry into a confined space containing toxic contaminants in concentrations at or above the IDLH will not be performed by M. G. Newell Corporation employees.

j. The confined space should be tested as often as necessary to ensure the safety of employees whenever conditions in the confined space change. If continuous ventilation is not being used, constant monitoring of the atmosphere should be utilized.

k. In addition to atmospheric testing, a qualified person should take positive steps to ensure that employees are protected from other physical hazards, which would include, but not be limited to the following:

- Discharge of steam, high-pressure air, water or oil into the confined space, or against personnel working outside.

- Structural failure of the tank shell, roof, roof support members, swing line cables, or other tank members.

- Tools or other objects dropping from overhead.

- Falls through or from the roof, or from scaffolds, stairs, or ladders.

- Tripping over hoses, pipes, tools, or equipment.

- Slipping on wet, oily surfaces or colliding with objects in inadequately lighted interiors.

- Insufficient or faulty personal protective equipment.

- Insufficient or faulty operations equipment and tools.

- Noise in excess of acceptable levels.

- External hazards such as vehicles and pedestrians

- Temperature extremes that may require additional protection or shorter work periods.

Permit Coordination: If more than one contractor will be working in the same space, the entry supervisors will coordinate the entry and ensure that the requirements of the permit and this program are followed.

C. Communications

Effective communications must be constantly maintained between the entrant and the Attendant. This may be possible through verbal communications, but if not, the supervisor must ensure that appropriate communications systems are implemented.

D. Duties of Key Personnel:

Duties of attendants

- Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure
- Is aware of possible behavioral effects of hazard exposure in authorized entrants
- Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants who are in the permit space

- Remains outside the permit space during entry operations until relieved by another attendant
- Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
- Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions
  - If the attendant detects a prohibited condition
  - If the attendant detects the behavioral effects of hazard exposure in an authorized entrant
  - If the attendant detects a situation outside the space that could endanger the authorized entrants; or
  - If the attendant cannot effectively and safely perform all the duties required
- Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards
- Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
  - Warn the unauthorized persons that they must stay away from the permit space
  - Advise the unauthorized persons that they must exit immediately if they have entered the permit space
  - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space
- Performs non-entry rescues as specified by the employer's rescue procedure
- Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants

Duties of Entry Supervisor

- Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;
- Terminates the entry and cancels the permit as required
- Verifies that rescue services are available and that the means for summoning them are operable;
- Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and
- Determines, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

Duties of authorized entrants

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Properly use equipment as required by paragraph (d)(4) of this section;
- Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required by paragraph (i)(6) of this section;
- Alert the attendant whenever:
  - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or
  - The entrant detects a prohibited condition; and
- Exit from the permit space as quickly as possible whenever:
  - An order to evacuate is given by the attendant or the entry supervisor,
  - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation,
  - The entrant detects a prohibited condition, or
  - An evacuation alarm is activated.

E. Lockout/Tagout

a. Before employees are permitted to enter a confined space, the confined space should be isolated to preclude the entry of hazardous materials by one or more of the following methods:

* All electrical and mechanical devices within or attached to the confined space should be disconnected or locked and tagged to prevent accidental movement or energizing of such systems.

* Removing a valve, spool piece, or an expansion joint in piping, and do so as close as possible to, the confined space. Then blank or cap the open end of the pipe leading to the confined space.

* Inserting a suitable full-pressure blank in piping between the flanges nearest to the confined space.

* Closing, locking, and tagging at least two valves in the piping leading to the confined space, and locking or tagging open to atmosphere a drain valve between the two closed valves. The drain should be checked to ensure that it is not plugged. In all cases, blanks or caps should be of a material that is compatible with the liquid, vapor, or gas with which they are in contact.

b. Coordination should be made with other contractors working in the area and the facility maintenance department to ensure that lockout procedures are standardized and understood by all parties involved.

E. Ventilation

a. All confined spaces should be mechanically ventilated to prevent accumulation of:

- Flammables in the atmosphere at concentrations above 10 percent of the LEL.

- Concentrations of combustible dusts.

- Oxygen excess or deficient atmospheres.

b. A qualified person should check periodically to ensure that contaminated air from a confined space is exhausted to a location where it presents no hazard.

F. Employee Training and Indoctrination

a. Employees assigned to work in confined spaces should have completed formal classroom and practical training. Training will be conducted prior to initial assignment, prior to a change in assigned duties, if a new hazard has been created and/or if special deviations have occurred. Training will include the following:

- Types of confined spaces associated with the industrial activity.

- Chemical and physical hazards involved.

- Safe work practices and techniques.

- Familiarization with the Confined Space Permit.

- Testing requirements, evaluation, and test methods.

- Safety equipment, to include:

  -- Respiratory protective devices
  -- Protective clothing and other protection such as harnesses, lifelines, eye protection, etc.
  -- Explosion-proof lighting, power cords, and connectors

- Emergency first aid and rescue procedures for safety-standby personnel.

- Applicable federal, state, and local regulations.

b. Retraining

Personnel should be retrained at least annually.

c. Documentation

Proof of training and retraining should be fully documented in writing.

G. Illumination

When temporary lighting is used in confined spaces, the following requirements should be met:

- Confined spaces with potential for flammable or explosive atmospheres (including dust) must use lighting approved for use in Class I, Division I, Groups A, B, C, and D atmospheres. Extension cords use for temporary lighting in these locations should be equipped with connectors or switches approved for hazardous locations.

- Temporary lighting should be equipped with adequate guards to prevent accidental contact with the bulb.

- The lighting should not be suspended by the electric cords, unless they are designed for this method of suspension.

- Electric cords should be kept clear of working spaces and walkways or other locations in which they may be exposed to damage.

H. Program Review

All permits will be kept for at least one year. These permits will be used to evaluate our program and recommend any needed improvements. Reviews will be done annually.

I. Additional Safety Equipment

Prior to entry the supervisor will ensure that all necessary safety equipment is on hand and in good operating order. In addition to ventilation equipment and lighting, which have already been covered in the pervious section, the job may require the following equipment.

Retrieval Systems
Harnesses
Gas Monitors
Manbaskets
Respirators
Romex Suits

J. Procedures for Terminating a Confined Space Entry

-Once work has been completed, all entrants must be evacuated and accounted for.
- Any energy sources that were locked out must be restored in accordance with company lockout procedures.
- Access ports, guards, barriers, etc. must be restored to normal position.
-Entry permit must be completed and returned to your appropriate department.

Confined Space - Rescue

1. General Requirements

- It is the intent of the Confined Space Standard to minimize the need for rescue of personnel working in permit-required confined spaces. This should be accomplished by designing confined space entries, when possible, so that an injured entrant can be

retrieved by the attendant without the attendant entering the confined space. This can be done by using harnesses, lifelines, and retrieval systems whenever possible. Care should be taken to ensure that the entrant does not wrap the retrieval line around piping or other obstacles that would prevent easy retrieval of the entrant.

- Whenever retrieval by the attendant is not possible a trained rescue team must be standing by in order to provide immediate assistance.

- Rescue personnel should be familiar with pertinent types of atmospheric testing, respiratory protection, rescue procedures, and the proper use of safety and rescue equipment.

- Rescuers should be instructed not to enter a confined space unless others are notified and standing by in case additional help is required.

- Tanks, vessels, or other confined spaces with both side and top openings should be entered from top openings when practical.

- An emergency phone number list with numbers that are geographically appropriate to the job should be posted at the jobsite.

2. Rescue Teams

a. Definition - Individuals who are physically capable of rescuing others by use of hoist, lifeline and harness, or entry into a confined space and who have current training in:

- Cardiopulmonary resuscitation (CPR)
- First aid
- Air-supplied respiratory protective equipment
- Self-contained supplied-air respiratory protective equipment

b. Duties

The employee should have an approved, maintained, self-contained respiratory protective device outside of the carrying case, ready for donning.

If a lifeline and harness are required for work inside the confined space, the stand-by person should wear the same.

An effective means of communication between employees inside a confined space and the attendant employee should be provided and used whenever atmospheric conditions of the confined space require the use of harnesses, or whenever employees inside a confined space are out of sight of the attendant.

The rescue team should enter the vessel only after alerting at least one additional employee outside the confined space of the existence of an emergency and of the rescue team's intent to enter the confined space, and only in case of an emergency such as:

- A worker inside suffers an injury.

- A worker inside indicates breathing difficulties.

PROCEDURES FOR NON-PERMIT REQUIRED CONFINED SPACES AND HAZARDOUS ATMOSPHERE ONLY CONFINED SPACES:

1. Section (c)(5)(i) of the Confined Space Standard allows that alternate procedures for entry into confined spaces can be utilized provided that all of the following apply:

   a. The only hazard posed by the permit space is an actual or potential hazardous atmosphere.

   b. Continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry.

   c. The employer has developed monitoring and inspection data that verifies the conditions set forth in (a) and (b).

   d. If entry into the confined space is required in order to determine whether or not the confined space possesses any hazards, it must be done so in accordance with the procedures for entering a permit-required confined space.

   e. Once the determination has been made that the confined space is a non-permit required confined space, the data supporting that determination must be made available to the workers. This can be done by completing a confined space permit, illustrating that the atmosphere and other hazards have been made safe, or it can be done with a meeting with the employees during which you demonstrate the atmospheric testing of the confined space and point out the nonexistence of other hazards.

2. Once the requirements for determination that the confined space is a non-permit required confined space have been completed, the entry may be done under the following conditions:

   a. Any condition making it unsafe to remove the entrance cover to a confined space must be eliminated and the entrance must be guarded by a railing or other temporary barricade as soon as the cover has been removed.

   b. Prior to entry, the internal atmosphere shall be tested with a calibrated direct reading instrument for the following conditions:

      1. Oxygen Content
      2. Flammable Gases and Vapors
      3. Potential Toxic Air Contaminants

   c. There may be no hazardous atmosphere within the space whenever an employee is inside the space.

   d. Continuous forced air ventilation must be used in the area where the employee is working and must continue until the employees have left the space.

   e. Periodic testing of the atmosphere in the space must be conducted as necessary to ensure that continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

f. If a hazardous atmosphere is detected during the entry:

1. Each employee shall leave the space immediately.
2. The space shall be evaluated to determine how the hazardous atmosphere developed.
3. Measures shall be implemented to protect employees from hazardous atmospheres before any subsequent entry takes place.

TRAINING OUTLINE:
Personnel that engage in confined space work must be properly trained. Topics covered for each job on a confined space project are as follows:

A. Training and duties of authorized entrants

1. Hazard recognition. The authorized entrants will:

   a. Know the hazards that may be faced during entry;

   b. Recognize the signs and symptoms of exposure to a hazard; and

   c. Understand the consequences of exposure to a hazard.

2. Communication

   a. Maintain contact with the attendant; and

   b. Notify the attendant when the entrants self-initiate evacuation of a permit space.

3. Protective equipment

   a. Authorized entrants must be aware of the personal protective equipment, such as retrieval lines, respirators or clothing, needed for safe entry and exit;

   b. Must be provided with the necessary personal protective equipment and have it on their vehicle;

   c. Must use the personal protective equipment properly; and

   d. Must be aware of the external barriers needed to protect entrants from external hazards and of the proper use of these barriers.

4. Self-rescue

   Authorized entrants must exit the permit space, unless it is physically impossible to do so, when:

   a. The attendant orders evacuation;

   b. An automatic alarm is activated; or

   c. The authorized entrants perceive that they are in danger.

B. Training and duties of the attendant.

An attendant must be stationed and remain outside the permit space(s) at all times during entry operations unless the confined space has been designated a "low hazard permit space." Employees who work as attendant must receive the appropriate training and perform their assigned duties under the entry permit program, as follows:

1. Number of entrants. Attendants must continuously maintain an accurate count of all persons in the space.

2. Hazard recognition. Attendants must know of and be able to recognize potential permit space hazards and monitor activities inside and outside the permit space to determine if it is safe for entrants to remain in the space.

3. Communication. Attendants must:

    a. Maintain effective and continuous contact with authorized entrants during entry;

    b. Order authorized entrants to evacuate the permit space immediately when:

        i. The attendant observes a condition that is not allowed in the entry permit;

        ii. The attendant detects behavioral effects of hazard exposure;

        iii. The attendant detects a situation outside the space which could endanger the entrants;

        iv. The attendant detects an uncontrolled hazard within the permit space;

        v. The attendant is monitoring entry in more than one permit space and must focus attention on the rescue of entrants from one of those spaces; and

        vi. The attendant must leave the workstation.

    c. Summon rescue and other emergency services as soon as the attendant determines that authorized entrants need to escape from permit space hazards; and

    d. Take the following actions, as necessary, when unauthorized persons approach or enter a permit space while entry is underway;

        i. Warn the unauthorized persons away from the space;

        ii. Request the unauthorized persons to exit immediately if they have entered the permit space; and

        iii. Inform the authorized entrants and any other persons designated by the employer if unauthorized persons have entered the permit space.

    e. Rescue. Attendants must be trained to ensure that they:

i. Do not enter the permit space to attempt rescue of entrants; and

ii. Properly use any rescue equipment provided for their use and perform any other assigned rescue and emergency duties, without entering the permit space.

C. Training and duties of the individual authorizing or in charge of entry (on-site supervisor)

Individuals authorizing or in charge of entry must receive the appropriate training and perform assigned duties, as follows:

1. Entry authorization and supervision. Individuals authorizing or in charge of entry shall:

a. Determine that the entry permit contains the requisite information before authorizing or allowing entry;

b. Determine that the necessary procedures, practices and equipment for safe entry are in effect before allowing entry;

c. Determine, at appropriate intervals, that entry operations remain consistent with the terms of the entry permit, and that acceptable entry conditions are present.

d. Cancel the entry authorization and terminate entry whenever acceptable entry conditions are not present; and

e. Take the necessary measures for concluding an entry operation, such as closing off a permit space and canceling the permit, once the work authorized by the permit has been completed.

2. Dealing with unauthorized personnel

Individuals authorizing or in charge of entry shall take the appropriate measures to remove unauthorized personnel who are in or near entry permit spaces.

CONFINED SPACE ENTRY PERMIT CHECKLIST

SUPERVISOR:_____ DATE:_____

JOBSITE: _____ TIME & DURATION OF ENTRY: _____

SPACE TO BE ENTERED:_____

NAME OF ENTRANT(S): _____

NAME OF ATTENDANT: _____

Atmosphere Tested For	Y	N	Comments/Readings
% Oxygen > 19.5	__	__	_____
Explosive Atmosphere	__	__	_____
Toxic Atmosphere	__	__	_____
Continuous Air Monitoring Performed	__	__	_____
Continuous Ventilation Provided	__	__	_____
Personal Protective Equipment Provided	__	__	_____
Supplied Air Respirator Provided	__	__	_____
Safety Harness Provided	__	__	_____
Lifelines/Emergency Escape Provided	__	__	_____
Approved Lighting Equipment Provided	__	__	_____
Necessary Rescue Equipment Provided	__	__	_____
Communication Equipment Provided	__	__	_____
All Attendants & Entrants have received training	__	__	_____

Air Testing Equipment Used: _____ Serial #: _____

Date Calibrated: _____

EMERGENCY SERVICE-

Service	Phone #	Method of Contact
_____	_____	_____
_____	_____	_____

NOTES:

Testing will be done prior to entry and then monitored continuously.
Permit is good for day of issuance only.

Type of Work to be Done:

_____

_____

I certify that all required precautions have been taken and necessary equipment is provided for safe work and entry in this confined space.

_____
Supervisor's signature

M. G. Newell Corporation

301 Citation Court (27409)
P.O. Box 18765
Greensboro, NC 27419-8765
Tel 336-393-0100
Fax 336-393-0140

ATMOSPHERIC MONITORING LOG

Entry Information

Supervisor Name: _____ (Print Name)
Attendant Name: _____ (Print Name)
Customer: _____
Space Entering: _____
Job Number: _____
Date: _____

Atmospheric Sampling Equipment Used

Manufacturer: _____
Model: _____
Serial Number: _____
Calibration Date: _____

Continuous Monitoring (Every 15 minutes)

Time (am/pm)	% O_2 (19.5%-23.5%)	%LEL (Max 10%)	H_2S (max 10ppm)	CO (max 25ppm)	Initials (Attendant)

Entrant Name (Print Name)	Time In (am/pm)	Time Out (am/pm)	Time In (am/pm)	Time Out (am/pm)

KEEP THIS LOG AT WORKSITE DURING THE OPERATION. RETURN TO PROJECT ENGINEER/MANAGER UPON COMPLETION.

Purpose

The purpose of this exposure control plan is to eliminate or minimize employee occupational exposure to blood or other potentially infectious materials as detailed in the Blood Borne Pathogens standard.

Scope

This program applies to all M. G. Newell Corporation employees who have an occupational exposure to blood borne pathogens. This includes first aid providers and employees who may be exposed to bodily fluid in the course of their work. This includes, but is not necessarily limited to employees that work around sewage facilities, Medical facilities, or laboratories. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Procedure

1. Exposure Determination

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment (i.e. employees are considered to be exposed even if they wear personal protective equipment.) This exposure determination is required to list all job classifications (e.g. maintenance crew, janitorial services, first aid responders, etc.) are in this category:

In this company no employees have been given job descriptions that include occupational exposure to blood or other body fluids. However, due to the nature of the work performed by this company, all employees have a potential exposure to blood borne pathogens that may result from accidents on the job. For this reason this plan is being implemented.

2. Implementation Schedule and Methodology

OSHA requires that this plan include a schedule and method of implementation for the various requirements of the standard. The following complies with this requirement:

Compliance Methods

Employees will have access to this exposure control program. Supervisors will maintain a copy on each project and employees will be informed of its availability during initial orientation.

Universal precautions will be observed in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

Protective gloves and spill clean up materials are available in all company first aid kits.

Hand washing facilities are also available to the employees who incur exposure to blood or other potentially infectious materials. OSHA requires that these facilities be readily accessible after incurring exposure. Hand washing facilities are located at the office restrooms. If wash facilities are not available at job sites, antiseptic wipes will be made available.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

Surfaces or equipment that has been exposed to body fluids will be cleaned with approved decontamination agents.

If employees incur exposure to their skin or mucous membranes then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

Work Practices

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering and generation of droplets of blood or other potentially infectious materials.

3. Methods that will be employed in this company to accomplish this goal are:

- All first aid kits will be equipped with Blood borne Pathogens kits that will include gloves and protective eyewear.
- Annual training will be conducted to train workers on the principles of universal precautions.

Personal Protective Equipment

All personal protective equipment used will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials.

All garments that are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area.

Gloves will be worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes. Gloves will be available from first aid kits.

4. Evaluation of Circumstances Surrounding Exposure Incidents

When the employee incurs an exposure incident, it should be reported to their supervisor who will then notify the Company Safety Director.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard.

This follow-up will include the following:

- Documentation of the route of exposure and the circumstances related to the incident.

- If possible, the identification of the source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained) for HIV/HBV infectivity.

- The results of testing of the source individual will be made available to the exposed employee with the exposed employee informed about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.

- The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides prior to that time that testing will be conducted then the appropriate action can be taken and the blood sample discarded.

- The employee will be offered post exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service.

- The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences to appropriate personnel.

5. Interaction with Health Care Professionals

Certain information is required to be provided to the health care professional responsible for providing an employee with the Hepatitis B vaccine and also certain information is required to be provided to the health care professional who conducts an evaluation of an employee following an exposure incident. This informational requirement is listed in paragraph (f) (4) of the standard.

A written opinion shall be obtained from the health care professional that evaluate employees of this facility. Written opinions will be obtained in the following instances:

1) When the employee is sent to obtain the Hepatitis B vaccine.

2) Whenever the employee is sent to a health care professional following an exposure incident.

Health care professionals shall be instructed to limit their opinions to:
1) Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine, or for evaluation following an incident

2) That the employee has been informed of the results of the evaluation, and

3) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials. (Note that the written opinion to the employer is not to reference any personal medical information)

6. Training

Training for all employees will be conducted prior to initial assignment to tasks where occupational exposure may occur. Training will be repeated within one year of previous training. Training will be conducted in the following manner:

Training for employees will include an explanation of the following:

1) The OSHA standard for Blood borne Pathogens
2) Epidemiology and symptomology of blood borne diseases
3) Modes of transmission of blood borne pathogens
4) This Exposure Control Plan, i.e. points of this plan, lines of responsibility, how the plan will be implemented, etc.)
5) Procedures which might cause exposure to blood or other potentially infectious materials on this project
6) Control methods that will be used at the facility to control exposure to blood or other potentially infectious materials.
7) Personal protective equipment available on this project and who should be contacted concerning
8) Post exposure evaluation and follow-up
9) Signs and labels used at the facility
10) Hepatitis B vaccine program at the facility

All employees will receive annual refresher training. (Note that this training is to be conducted within one year of the employee's previous training.)

Recordkeeping

- All records required by the OSHA standard will be maintained by the Main Office
- Training records will be kept for a minimum of three years
- Medical records will be kept for the duration of employment plus 30 years.

Appendix A
Hepatitis B Declination

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and if I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

_____ _____

Signature Date

Purpose

An accident investigation is carried out to determine the cause of the accident so that appropriate actions can be taken to prevent a reoccurrence. Remember, the purpose of accident investigation is FACT FINDING, not fault finding. The first priority once an incident or accident is known is to insure the proper medical care is accessible to all in need.

Scope

Applies to all M. G. Newell Corporation employees, supervisors, and subcontractors

Responsibility

- The Project Engineer/Manager or Site Manager will insure that arrangements are in place to, if necessary, transport injured or ill workers from the work site to the nearest health care facility. This includes that an ambulance service is readily available to the work location when travel conditions are normal. If an ambulance service is not readily available to the work site, or if travel conditions are not normal, the Project Mgr. must ensure the following; (1) that other transportation is available and takes into account the distance needed to travel to the health care facility, (2) the types of potential acute illnesses or injuries that may occur at the work site, (3) protects occupants from the weather, (4) has systems in place that allow the occupants to communicate with the health care facility to which the ill or injured worker is being taken to, (5) can accommodate a stretcher and an accompanying person if required to.
- The Project Manager or Site Manager is responsible for investigation of accidents and incidents occurring on his jobsite and for corrective measures necessary to prevent reoccurrence.
- Subcontractor supervisors are responsible for the initial investigation of their accidents.
- The Project Manager is responsible for reviewing the investigation and seeing that the corrective measures required are put into effect. All incidents will be investigated to the appropriate level with regards to incident severity.
- The Company will provide training, at least annually, to the appropriate personnel in their responsibilities, including incident investigation techniques.
- Proper equipment to be used for an investigation will be provided, including but not limited to, writing equipment, rulers, tape measures, cameras, marking devices, etc.

Procedure

General procedures for all accidents:

1. Provide immediate first aid or medical care for the injured.
2. Report all accidents and near misses to the main office by telephone immediately. Follow up with written report and daily logs.
3. All incidents will be verbally reported to the host facility immediately, but no later than 24 hours from the time of the incident.

Employee accidents on the jobsite

1. The site manager should initiate an investigation as soon as possible. Also, pictures should be taken of the scene.
2. All witnesses and the victim (if possible) should be interviewed as soon as possible. Interviews should be done individually, not as a group. Written statements should be taken if deemed appropriate.
3. Corrective measures should be implemented immediately.

Vehicle accidents

1. Contact police if on public road.
2. Gather necessary data as required to complete the forms contained in the glove compartment of the vehicle.
3. Ascertain to what doctor or hospital the injured parties may have been taken.
4. Contact main office immediately.
5. Submit the written report as soon as possible (always on the same day as the accident).
6. Never make or allow anyone else to make a statement admitting liability or responsibility. This could compromise your insurance coverage.

Public Liability (accidents involving non-employees)

1. Call an ambulance if needed.
2. Call the police.
3. Contact project manager and the main office.
4. Get names and phone numbers of witnesses.
5. Draw diagrams, take photos, or gather any other pertinent information.
6. Get written or taped statements from witnesses (facts tend to change if these statements are not taken immediately).
7. MAKE NO STATEMENT TO MEDIA. Refer them to the main office.

SERIOUS/FATAL ACCIDENT PROCEDURES

1. Check conditions at the scene and secure the area. Could more injuries occur? Rope off area as soon as the ambulance leaves.
2. If the police did not respond with the ambulance, call them. They will have to conduct a homicide investigation if a fatality has occurred.
3. Contact the main office and tell them what happened. Tell them that you're going to refer all calls to them and let them know if you have informed the next of kin.
4. Check with police about notifying next of kin. They may do this for you. Check to see if the deceased has a relative or close friend on the job that might assist with the notification.
5. If the jobsite is fenced, send someone to the gate to prevent media and other spectators from entering the jobsite. Give reporters the main office phone number and tell them to contact the main office for information. Be pleasant but firm!
6. Establish two files, one for your records and one for the OSHA inspector. The files should contain the following information. Please note that all collection and preservation of evidence will be secured and forwarded to the General Mgr. and Director of Human Resources & Safety.
    - The victim's application for employment.
    - A copy of all safety meetings conducted on this jobsite.
    - A copy of the company safety program.
    - A copy of your OSHA 300 form.
    - Inspection/maintenance records on any equipment involved in the accident.
    - Photographs of the entire scene.
    - Handwritten statements from witnesses. (Do not put these in the OSHA file; the inspector will conduct his own interviews.)
7. If the accident was a fatality, or required the hospitalization of three or more employees, notify the GM and Director of Human Resources who will in turn notify OSHA or the State OSHA office. Document the call, noting the time and the name of the person that you spoke with. Remember that this must be done within 8 hours of the time of the accident. The OSHA number is 1-800-321-OSHA.
8. Documentation and communication of “lessons learned” as well as review of similar operations will be accomplished to prevent reoccurrences.

M. G. Newell Corporation is committed to providing a safe work environment and to fostering the well-being and health of its employees. That commitment is jeopardized when any M. G. Newell Corporation employee illegally uses drugs on or off the workplace, or abuses alcohol on the job. Therefore, M. G. Newell Corporation has established the following policy:

1. It is a violation of company policy for any employee to use, possess, 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 the company policy for any employee to use prescription drugs illegally, i.e., to use prescription drugs that have not been legally obtained or in a manner or for a 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.

6. Legal drugs may also affect the safety of the associate or fellow associates or members of the public. Therefore, any associate who is taking any legal drug which might impair safety, performance, or any motor functions must advise his or her supervisor before reporting to work under such medication. A failure to do so may result in disciplinary action. Improper use of “legal drugs” is prohibited and may result in disciplinary action.

It is the responsibility of the company’s supervisors to counsel employees whenever they see changes in performance or behavior that suggest an employee has a drug problem. Although it is not the supervisor’s job to diagnose personal problems, the supervisor should encourage such employees to seek help and advise them about available resources for getting help. Everyone shares responsibility for maintaining a safe work environment, and co-workers should encourage anyone who has a drug problem to seek help.

The goal of this policy is to balance our respect for individuals with the need to maintain a safe, productive and drug-free environment. The intent of this policy is to offer a helping hand to those who need it, while sending a clear message that the illegal use of drugs and the abuse of alcohol are incompatible with the employment at M. G. Newell Corporation

The company offers resource information on various means of employee assistance in our community, including but not limited to drug and alcohol abuse programs. Employees are encouraged to use this resource file.

General Procedures

Any employee reporting to work visibly impaired will be deemed unable to perform required duties and will not be allowed to work. If possible the employee's supervisor will first seek another supervisor's opinion to confirm the employee's status. Next, the supervisor will consult privately with the employee to determine the cause of the observation, including whether the substance abuse has occurred. If, in the opinion of the supervisor, the employee is considered impaired, the employee will be sent home or to a medical facility by taxi or other safe transportation alternative – depending on the determination of the observed impairment – and accompanied by the supervisor or another employee if necessary. A drug or alcohol test may be in order. An impaired employee will not be allowed to drive.

Opportunity to Contest or Explain Test Results

Employees and job applicants who have a positive confirmed drug or alcohol test result may explain or contest the result to the medical review officer within three (3) working days after receiving written notification of the test result from the medical review officer; if an employee's or job applicant's explanation or challenge is unsatisfactory to the medical review officer, the medical review officer shall report a positive test result back to the company; a person may contest the drug test result pursuant to rules adopted by the local Department of Labor.

Confidentiality

The confidentiality of any information received by the employer through a substance abuse testing program shall be maintained, except as otherwise provided by law.

Job Applicant Drug Testing

Job applicants at this Company will undergo testing for substance abuse as a condition of employment. Any applicant with a confirmed positive test result will be denied employment.

Applicants will be required to submit voluntarily to a urinalysis test at a laboratory chosen by this Company, and by signing consent agreement will release this Company from liability. If any applicant refuses, he or she will not be considered for employment.

If the physician, official or lab personnel has reasonable suspicion to believe that the job-applicant has tampered with the specimen, the applicant will not be considered for employment for a period of two (2) years.

This Company will not discriminate against applicants for employment because of a past history of drug or alcohol abuse. It is the current illegal use of drugs and/or abuse of alcohol, preventing employees from performing their jobs properly, that this Company will not tolerate.

Employee Drug Testing

This Company has adopted testing practices to identify employees who illegally use drugs on or off the job or who abuse alcohol on the job. It shall be a condition of employment for all employees to submit to substance abuse testing under the following circumstances:

1. When there is reasonable suspicion to believe that an employee is illegally using drugs or abusing alcohol. 'Reasonable suspicion' is based on a belief that an employee is using or has used drugs or alcohol in violation of the employer's policy drawn from specific objective and articulable facts and reasonable inferences drawn from those facts in light of experience. Among other things, such facts and inferences may be based upon, but not limited to, the following:

    a. Observable phenomena while at work such as direct observation of substance abuse or of the physical symptoms or manifestations of being impaired due to substance abuse;
    b. Abnormal conduct or erratic behavior while at work or a significant deterioration in work performance;
    c. A report of substance abuse provided by a reliable and credible source;
    d. Evidence that an individual has tampered with any substance abuse test during his or her employment with the current employer;
    e. Information that an employee has caused or contributed to an accident while at work; or
    f. Evidence that an employee has used, possessed, sold, solicited, or transferred drugs while working or while on the employer's premises or while operating the employer's vehicle, machinery, or equipment.

2. When employees have caused or contributed to an on-the-job injury that resulted in a loss of work-time, which means any period of time during which an employee stops performing the normal duties of employment and leaves the place of employment to seek care from a licensed medical provider. An employer may send employees for a substance abuse test if they are involved in on-the-job accidents where personal injury or damage to company property occurs.

3. As part of a follow-up program to treat for drug abuse.

Alcohol Testing

The consumption or possession of alcoholic beverages of this Company's premises is prohibited. (Company sponsored activities which may include the serving of alcoholic beverages are not included in this provision.) An employee whose normal faculties are impaired due to alcoholic beverages, or whose blood alcohol level tests .08% by weight for non-safety sensitive positions, or .04% for safety sensitive positions, while on duty/company business shall be guilty of misconduct, and shall be subject to discipline up to and including termination.

Refusal to Submit

Failure to submit to a required substance abuse test also is misconduct and also shall be subject to discipline up to and including termination.

NOTICE

This Substance Abuse Policy/Program does not constitute a contractual undertaking by the Company and the Company does not, through this Policy, assume or offer to assume any obligations beyond that which may be imposed by applicable law. The Company reserves the right to alter, amend, or discontinue any policy or program included in the Substance Abuse Policy/Program with or without notice at its sole discretion. The failure of the Company to exercise any function in any particular way shall not be considered a waiver of the Company's right to exercise such function or preclude the Company from exercising that prerogative in some other way. The employee is responsible to notify the Company, its agents, including but not limited to insurance carriers, testing laboratory, medical review officer and testing administrators of any administrative or civil action brought pursuant to this section.

The provisions of this policy are subject to any applicable collective bargaining agreement or contract and include the right of appeal to the applicable court.

Substance abuse testing for job applicants and employees will include a urinalysis screen for the following drugs:

Alcohol: (not required for job applicant testing)

Any “Alcohol Beverage”, all liquid medications containing ethyl alcohol (ethanol). Please read the label for content. For example; Vicks Nyquil is 25% (50 proof) ethyl alcohol, Comtrex is 20% (40 proof), Contac Severe Cold Formula Night Strength is 25% (50 proof) and Listerine is 26.9% (54 proof).

Amphetamines	500 ng/ml	250 ng/ml
Methamphetamines		
MDMA		
MDA		
MDEA		
Opiate Metabolites	300 ng/ml	300 ng/ml
6-Acetylmorphine	10 ng/ml	10 ng/ml
Cocaine Metabolites	150 ng/ml	100 ng/ml
Marijuana Metabolites	50 ng/ml	15 ng/ml
Phencyclidine	25 ng/ml	25 ng/ml
Barbiturates	300 ng/ml	300 ng/ml
Benzodiazepines	300 ng/ml	300 ng/ml
Methadone	300 ng/ml	300 ng/ml
Propoxyphene		

M. G. Newell Corporation

DRUG AND ALCOHOL SCREENING
NOTIFICATION AND CONSENT
MEDICAL AUTHORIZATION AND RELEASE

I HEREBY ACKNOWLEDGE that I have received and read the Company's Substance Abuse Policy and understand that I must abide by it as a condition of employment. I also understand that as part of my application for employment and during my employment I may be required to submit to a drug and/or alcohol test and that submission to such testing is a condition of employment and disciplinary action, including termination, may result if I refuse to submit to such testing, or if the test results in a violation of the Company's Policy concerning substance abuse.

I further agree to and hereby authorize the release of the results of said tests to the Company and its designated agents. I acknowledge that my signing of this consent and release form is a voluntary act on my part and that I have not been coerced into signing this document by anyone.

THE UNDERSIGNED STATES THAT HE OR SHE HAS READ THE PREVIOUS ACKNOWLEDGEMENT AND UNDERSTANDS THE CONTENTS THEREIN.

_____ _____
EMPLOYEE SIGNATURE DATE

_____ _____
EMPLOYEE NAME (PLEASE PRINT) SOCIAL SECURITY NUMBER

_____ _____
WITNESS DATE

Purpose

The purpose of our Risk Assessment process is to keep people and operations safe by identifying, analyzing, controlling, and where possible, eliminating occupational safety and health hazards.

Scope

This process applies to all M. G. Newell associates and authorized subcontractors to M G Newell. Risk assessments will be performed on M. G. Newell properties as well as on customer project sites at intervals appropriate for the nature of the operations. (Please note a separate and defined Personal Protective Equipment section follows this overview in Chapter 18).

Procedures

1) The Hazard Identification and Evaluation system will begin with a thorough understanding of all hazardous situations to which associates and authorized subcontractors may be exposed to, as well as the ability to recognize, rank, correct, and/or minimize existing hazards as they arise. This will be accomplished by a system to eliminate the hazard all together, however, if that is not practical, use engineering controls. If engineering controls are not practical, implement administrative controls. If neither engineering nor administrative controls are not practical, required PPE will be implemented. Assigned M. G. Newell associates as well as authorized subcontractors will be trained in this process where appropriate as well as be actively involved in this process.

2) Risk Assessments performed on M. G. Newell properties will include monthly self- inspections that follow written guidelines followed by tracking of decision-making that addresses the hazard(s). See Attachment “A”

3) Risk Assessments performed on M. G. Newell customer project sites will include a “Mobilization report”, “Site-Inspection report” and “Demobilization report” that follow written guidelines and tracked in the project job folder. See Attachments “B”, “C”, & “D”.

4) Periodic baseline health hazard exposure assessments, primarily focusing on noise and air sampling in M G Newell properties, will be accomplished and surveyed by a certified Industrial Hygienist.

5) A policy and proven system for employees and subcontractors, without fear of reprisal, is in place to notify management and/or safety committee members of hazards or potential hazards. Tracking of such with outcomes are reviewed and documented.

6) An accident/incident investigation system with written reports and findings designed to identify “root causes” will be used to evaluate, control, or eliminate hazards. For further details on accident/incident investigation, refer to Chapter 16.

7) A system to analyze trends through review with our Risk Insurance broker (CSP’s) and insurance provider is in place.

8) All identifiable hazards and/or potential hazards will be classified and ranked from a wide range of sources. Risks may be determined by analyzing the probability of the hazard causing or potentially

causing harm, the frequency the hazard is encountered, and the potential consequence of impact with the hazard. General examples of risk sources include, Substance, Material, Process, Thing, Source, Practice, and Behavior.

Purpose

The purpose of the Personal Protective Equipment section is to set forth the procedures for the use, care, and maintenance of personal protective equipment required to be used by employees for the prevention of injuries.

Scope

Applies to all M. G. Newell Corporation employees. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Key Responsibilities

Safety Director

Assists in the selection of appropriate PPE. If a task exposes an employee to hazards which cannot be eliminated through engineering or administrative controls, the Safety Director assists the supervisor and project manager to identify and select PPE suitable for the specific task performed, conditions present, and frequency and duration of exposure. Employees need to give feedback to the supervisor about the fit, comfort, and suitability of the PPE being selected. Employees are provided reasons for selection of PPE.

Assists supervisor and site managers in assuring all PPE obtained meets regulatory and this procedure's requirements.

Performs Worksite Hazard Assessments - The hazard assessment must indicate a determination if hazards are present or are likely to be present, which necessitate the use of PPE. Sources of hazards include, but are not limited to: hazards from impact/motion, high/low temperatures, chemicals, materials, radiation, falling objects, sharp objects, rolling or pinching objects, electrical hazards, and workplace layout.

Certifies in writing the tasks evaluated, hazards found and PPE required to protect employees against hazards and ensures exposed employees are made aware of hazards and required PPE before they are assigned to the hazardous task. Certificate shall include certifier's name, signature, dates and identification of assessment documents.

Project Managers and Supervisors

Supervisors and managers shall regularly monitor employees for correct use and care of PPE, and obtain follow-up training if required to ensure each employee has adequate skill, knowledge, and ability to use PPE.

Supervisors and managers shall enforce PPE safety rules following the guidance of the M. G. Newell Corporation progressive disciplinary procedures.

Employees

Must properly use and maintain their PPE.

Must report changes in exposure to hazardous conditions that might require a follow-up assessment of the task for PPE.

Must report and replacing defective PPE, which shall not be used.

Wearing of required PPE is a condition of employment.

Procedure

General

Employee owned equipment is NOT permitted, except for safety toe footwear and prescription safety glasses. M. G. Newell Corporation is still responsible for the assurance of its adequacy, maintenance and sanitation of those two items.

All PPE issued shall be at no cost to the employee and PPE shall be used and maintained in a sanitary and reliable condition. Defective or damaged PPE will be discarded and replaced.

PPE will be fitted to each employee.

All employees will know and follow the procedures outlined in this Program.

Eye Protection

Employees must use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids or chemical gases or vapours. Eye and Face PPE must comply with ANSI Standard Z87.1-2003 (Z87+), *Occupational and Educational Personal Eye and Face Protective Devices.*

Safety Glasses

Safety glasses, with side shields, that meet ANSI Z-87.1-2003 standards with “high Impact lenses” are required to be worn by all employees, subcontractors, and visitors while on M. G. Newell Corporation property, at all times, as described below:

- At field locations, in shops and warehouses, except in approved, designated, zones where cutting or grinding is taking place.
- In all yard work zones or by everyone when in the vicinity of loading or unloading equipment, performing mechanic or maintenance work, test stand operations, operating equipment such as forklifts, welding, or any type of work which has the potential to inflict an eye injury.
- In any office, restroom, or any other building while performing any type of work where a potential eye injury may be present.
- Visitors will be provided with visitor glasses. In the absence of approved prescription safety glasses, “Over the glass” type safety glasses or goggles, must be worn over the nonsafety glasses until approved prescription safety glasses are obtained.
- Workers assisting welders must wear absorbent safety glasses that protect the wearer from ultra-violet (UV) and/or infrared rays (IR).

- Dark shaded lens (sunglasses) darker than a # 1 shade is prohibited to be worn indoors unless welding or assisting a welder.
- A doctor must support "exceptions for medical reasons" in writing to exempt safety eyewear requirements.
- Safety glasses are not required:
    - Inside offices.
    - Parking lots when traveling from vehicles to and from office buildings by way of main doors that do not pass through shops.

Goggles

- Chemical splash proof goggles shall be worn when handling or mixing liquid chemicals, solvents, paints, etc., and/or as recommended on the Material Safety Data Sheet of the material being handled.
- Dust proof goggles shall be worn when blowing equipment down with air or while performing other jobs where safety glasses are not adequate to prevent airborne particles from entering the openings around the lenses and side shields.

Face Shields

- Full face shields shall be worn over safety glasses when operating hand held or stationery grinders with abrasive or wire wheels, while chipping paint or concrete or, performing jobs where there is the potential for flying objects striking the face and safety glasses or goggles would not provide adequate protection.

Head Protection

Employees must wear protective helmets when working in areas where there is a potential for injury to the head from employee initiated impact or impact from falling or other moving objects. Helmets must comply with ANSI Standard Z89.1-1997 Class E, *American National Standard for Industrial Head Protection* for Type II head protection or be equally effective.

- Employees must wear protective helmets when working in areas where there is a potential for injury to the head from falling objects.
- Hardhats are to be worn at all field, shop and warehouse locations, if required, or where deemed necessary as per each location's PPE Hazard Assessment.
- Hardhats will not be altered in any way.
- Do not paint or apply unauthorized stickers, name plates, etc.
- Do not drill, cut, bend, or apply heat.
- Do not alter the suspension system.
- Hardhats will be inspected by the employee regularly for cracks, chips, scratches, signs of heat exposure (sun cracks), etc.
- Defective hardhats will be replaced immediately.
- Hardhats shall not be placed in rear windows of vehicles where they will be exposed to the sun or become projectiles during an accident.
- A supply of hardhats must be made available to visitors.
- M. G. Newell Corporation shall provide hardhats.
- Employees will be trained in the use, care and maintenance of head protection equipment.

Hearing Protection

Hearing protection is required to be worn by all employees, subcontractors, and visitors while in posted "High Noise" areas. Refer to the M. G. Newell Corporation Hearing Conservation Program for more information.

Warning signs will be posted in areas known or suspected to have noise levels exceeding 85 dBA either constantly or intermittently.

When signs are not posted, employees shall wear hearing protection when noise caused by machinery, tools, etc., prevents normal conversations to be heard clearly.

Rule of thumb: If you have to yell to be heard, hearing protection is required

Types

- Molded Inserts (ear plugs)
- Canal Caps (head band type)
- Muff, either headband or hard hat mounted Earmuffs and earplugs shall be provided to the employee in sizes and configurations that will be comfortable to the employee.

Care and Maintenance

- Inspect hearing protection prior to each use.
- Hearing protection must be kept clean to prevent ear infections.
- Most earplugs used today are disposable and must be discarded when they become dirty, greasy, or cracked.
- Earmuffs that have deteriorated foam inserts, cracked seals or are defective must be replaced.

Fit

- Due to individual differences, not everyone can wear the same type of hearing protection. A variety of styles may have to be tried before one is found to be comfortable and provide adequate protection.
- Employees shall be instructed how to obtain the proper fit.

Hand Protection

Gloves

- Gloves are required to be worn when performing work, which may expose the hands to extreme temperatures, cuts and abrasions, or exposure to chemicals.
- Welding: Welding gloves made of leather or other heat resistant materials shall be worn when performing arc welding or oxy/gas cutting.
- Chemical: Impervious (chemical resistant) gloves shall be worn when handling chemicals that specify gloves as personal protection equipment when handling.
- Refer to the specific chemical's Material Safety Data Sheet for the correct glove type.
- Persons assigned to working with chemicals, i.e., solvent vats, shall be issued their own individual gloves for hygiene purposes.
- Leather: Leather gloves should be worn when working with sharp materials or when handling rigging equipment.

- Cloth: Cloth gloves should be worn when handling objects or materials, which could cause blisters, splinters, cuts, etc.
- Heat Resistant: Heat resistant gloves shall be worn when handling hot bearings, races, or other materials or objects that have been heated beyond ambient temperatures.
- Insulated: Insulated gloves shall be worn to prevent frostbite in extreme cold climates.
- Glove Inspections
    - Gloves shall be inspected before each use for holes, tears, and worn areas.
    - Chemical gloves shall be periodically air tested for pinholes by twisting the cuff tightly, apply low air pressure to expand the glove, and then submersing in water to check for bubbles.
    - Defective gloves shall be discarded immediately. Exception: machinists are exempted from wearing gloves while working with rotating machinery.

Foot Protection
Safety footwear shall be worn by all employees with regularly assigned duties at field locations, in shops and warehouses.

- Office workers and visitors who enter these areas on an infrequent basis will not be required to wear foot protection provided they stay clear of the work being performed.
- If required to be in the close proximity of the work, the work will be stopped while visiting the area or safety footwear will be worn.

Shops, Field Locations, Warehouses and Parts Departments: Leather or equivalent boots, either lace up or pull up, shall be worn.

- The boot must provide ankle protection and have soles designed to protect from punctures with defined heels for climbing ladders.
- Metatarsal guards will be worn when duties present a hazard of equipment or material crushing the foot.
- All safety footwear must meet ANSI Z41-1999 standards.
- Client locations may require safety footwear to be worn by everyone; check with the local supervisor for client requirements before visiting field locations.

Fall Protection
Personal fall protection is required when performing certain elevated jobs in excess of six feet. Consult the M. G. Newell Corporation Fall Protection Program.

Electrical Protection
Consult the M. G. Newell Corporation Electrical Safety Program.

Worksite Hazard Assessment
During a hazard assessment the following sample hazard sources will be identified:

High or low temperatures; Chemical exposures (use MSDS for guidance)
Flying particles, molten metal or other eye, face, or skin hazards
Falling objects or potential for dropping objects; employee falling from a height of 6’ or more
Sharp objects; Rolling or pinching that could crush the hands or feet;

Electrical hazards

Where these hazards could cause injury to employees, personal protective equipment must be selected to substantially eliminate the injury potential. Employees will be notified for the selection and reason.

The results of this assessment shall be communicated to each affected employee and kept at the local office.

Selected/identified PPE shall be fitted to each affected employee. Exemptions for use of PPE must be supported by the PPE hazard assessment.

Monitoring
Supervisors and site managers monitor worksite tasks for changes in, or the introduction of new hazards. If new hazards are discovered, the Site Manager then conducts a hazard assessment for appropriate PPE. The Site Manager monitors the effectiveness of the PPE Procedure and makes recommendations to management to improve the procedure.

Training

Each employee who requires PPE shall be properly trained. Training shall include:

- When PPE is necessary.
- What PPE is necessary.
- How to properly don, doff, adjust and wear PPE.
- The limitations of PPE.
- How to maintain PPE in a sanitary and reliable condition.

Retraining
Retraining is required when:

- The workplace changes, making the previous training obsolete.
- The type of PPE changes.
- When the employee demonstrates lack of use, improper use, or insufficient skill or understanding in PPE selection, necessity, use and limitations.

Documentation
Training shall be documented and records kept at the local office. The training documentation shall include:

- Name of employee(s) trained;
- The dates of training; and
- The training subject.

PPE Matrix For M. G. Newell Corporation **Location: _____**

D = Depends on situation M = Mandatory - = Not Mandatory unless hazards become present
SUBJECT TO CHANGE BASED ON INDIVIDUAL WORKSITE HAZARD ASSESSMENT **CHANGE ALL AS NEEDED**

CATEGORY	EQUIPMENT	HAZARD	INSPECTION	MAINTENANCE	Job/Task: Field Tech	Housekeeping	Shop Work	Driving	Office	Winter Conditions
Head Protection:										
	Hard Hat (Class G or E Only)	Striking Head or Falling Objects	Each use	Dispose	-	-	D	-	-	-
Eye and Face Protection:										
	Safety Glasses w/shields	Objects Striking Eyes	Each use	Dispose	D	D	M	*	-	M
	Impact Vented Goggles	Small Particles in Eyes	Each use	Dispose	-	-	D	-	-	D
	Chemical Splash Goggles	Chemicals or Oil in Eyes	Each use	Dispose	D	D	D	-	-	-
Hearing Protection:										
	Disposable Earplugs	Damage to Hearing (85 db)	Each use	Dispose	D	D	D	-	-	-
	Ear Muffs (w/Disposables)	Damage to Hearing (105 db)	Each use	Dispose	D	D	D	-	-	-
Personal Protective Clothing:										
	Cold Weather Clothing	Cold Temperature	Each use	Clean & Repair	D	D	D	D	-	D
	Rainwear	Wet body	Each use	Dispose	-	-	D	-	-	-
	Protective Sleeves	Biohazardous materials	Each use	Dispose	-	M	-	-	-	-
	Insert more or delete as needed									
Foot Protection:										
	Slip Resistant Footwear	Injury to Body	Each use	Replace	M	M	M	-	-	-
	Anti-Slip Cleats during Winter	Injury to Body	Each use	Dispose	M	M	M	-	-	M
Hand Protection:										
	Anti-cut Gloves	Cuts	Each use	Dispose	M	D	M	-	-	-
	Vinyl Disposable Gloves	Biohazardous materials	Each use	Dispose	-	M	-	-	-	-
	Heavy Duty Gloves	Injuries to Hands	Each use	Dispose	-	-	M	-	-	-
	Cold weather Gloves	Environmental Exposure	Each use	Dispose	-	-	-	-	-	M
	Rubber Gloves	Hot Water Burns	Each use	Dispose	M	-	-	-	-	-

PPE Hazard Assessment Certification Form

Name of work place: _____ **Conducted by Name/Signature**: _____

Work place address: _____ **Date of assessment:** _____

Work area(s): _____ **Job/Task(s):** _____

(Use a separate sheet for each job/task or work area)

EYES

Work activities, such as:	Work-related exposure to:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐
☐ abrasive blasting ☐ chopping ☐ cutting ☐ drilling ☐ welding ☐ soldering ☐ torch brazing ☐ working outdoors ☐ computer work ☐ punch press operations ☐ other:	☐ airborne dust ☐ dirt ☐ UV ☐ flying particles/objects ☐ blood splashes ☐ hazardous liquid chemicals mists ☐ chemical splashes ☐ molten metal splashes ☐ glare/high intensity lights ☐ laser operations ☐ intense light ☐ hot sparks ☐ other:	If no, use: / With: ☐ Safety glasses ☐ Safety goggles — ☐ Face shield ☐ Dust-tight goggles ☐ Impact goggles ☐ Welding helmet/shield ☐ Chemical goggles ☐ Chemical splash goggles ☐ Laser goggles ☐ Shading/Filter (#_____) ☐ Welding shield ☐ Other:

FACE

Work activities, such as:	Work-related exposure to:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐
☐ cleaning ☐ welding ☐ siphoning ☐ painting ☐ dip tank operations ☐ metal pouring ☐ other:	☐ hazardous liquid chemicals ☐ extreme heat ☐ extreme cold ☐ potential irritants: ☐ other:	If no, use: ☐ Face shield ☐ Shading/Filter (#_____) ☐ Welding shield ☐ Other:

HEAD		
Work activities, such as: ☐ building maintenance ☐ confined space operations ☐ construction ☐ electrical wiring ☐ walking/working under catwalks ☐ walking/working on catwalks ☐ walking/working under conveyor belts ☐ working with/around conveyor belts ☐ walking/working under crane loads ☐ other:	Work-related exposure to: ☐ beams ☐ pipes ☐ exposed electrical wiring or components ☐ falling objects ☐ fixed object ☐ machine parts ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Protective Helmet ☐ Type A (low voltage) ☐ Type B (high voltage) ☐ Type C ☐ Bump cap (not ANSI-approved) ☐ Hair net or soft cap ☐ Other:
HANDS/ARMS		
Work activities, such as: ☐ material handling ☐ sanding ☐ grinding ☐ welding ☐ working with glass ☐ using power tools ☐ working outdoors ☐ using knives ☐ computer work ☐ other:	Work-related exposure to: ☐ blood ☐ irritating chemicals ☐ tools or materials that could scrape or cut ☐ extreme heat ☐ extreme cold ☐ animal bites ☐ electric shock ☐ vibration ☐ musculoskeletal disorders ☐ sharps injury ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Gloves ☐ Chemical resistance ☐ Liquid/leak resistance ☐ Temperature resistance ☐ Abrasion/cut resistance ☐ Slip resistance ☐ Latex or nitrile ☐ Anti-vibration ☐ Protective sleeves ☐ Ergonomic equipment_____ ☐ Other:

FEET/LEGS		
Work activities, such as: ☐ building maintenance ☐ construction ☐ demolition ☐ food processing ☐ working outdoors ☐ logging ☐ plumbing ☐ trenching ☐ use of highly flammable materials ☐ welding ☐ other:	Work-related exposure to: ☐ explosive atmospheres ☐ explosives ☐ exposed electrical wiring or components ☐ heavy equipment ☐ slippery surfaces ☐ impact from objects ☐ pinch points ☐ crushing ☐ slippery/wet surface ☐ sharps injury ☐ blood ☐ chemical splash ☐ chemical penetration ☐ extreme heat/cold ☐ fall ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Safety shoes or boots ☐ Toe protection ☐ Electrical protection ☐ Heat/cold protection ☐ Puncture resistance ☐ Chemical resistance ☐ Anti-slip soles ☐ Leggings or chaps ☐ Foot-Leg guards ☐ Other:
BODY/SKIN		
Work activities such as: ☐ battery charging ☐ dip tank operations ☐ fiberglass installation ☐ sawing ☐ other:	Work-related exposure to: ☐ chemical splashes ☐ extreme heat ☐ extreme cold ☐ sharp or rough edges ☐ irritating chemicals ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Vest, Jacket ☐ Coveralls, Body suit ☐ Raingear ☐ Apron ☐ Welding leathers ☐ Abrasion/cut resistance ☐ Other: With: ☐ Long sleeves

BODY/WHOLE		
Work activities such as: ☐ building maintenance ☐ construction ☐ logging ☐ computer work ☐ working outdoors ☐ utility work ☐ other:	Work-related exposure to: ☐ working from heights of 10 feet or more ☐ impact from flying objects ☐ impact from moving vehicles ☐ sharps injury ☐ blood ☐ electrical/static discharge ☐ hot metal ☐ musculoskeletal disorders ☐ sparks ☐ chemicals ☐ extreme heat/cold ☐ elevated walking/working surface ☐ working near water ☐ injury from slip/trip/fall ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: With: ☐ Fall Arrest/Restraint ☐ Hood ☐ Traffic vest ☐ Full sleeves ☐ Static coats/overalls ☐ Flame resistant jacket/pants ☐ Insulated jacket ☐ Cut resistant sleeves/wristlets ☐ Hoists/lifts ☐ ergonomic equipment: _____ ☐ Other:
LUNGS/RESPIRATORY		
Work activities such as: ☐ cleaning ☐ mixing ☐ painting ☐ fiberglass installation ☐ compressed air or gas operations ☐ confined space work ☐ floor installation ☐ ceiling repair ☐ working outdoors ☐ other:	Work-related exposure to: ☐ dust or particulate ☐ toxic gas/vapor ☐ chemical irritants (acids) ☐ welding fume ☐ asbestos ☐ pesticides ☐ organic vapors ☐ oxygen deficient environment ☐ paint spray ☐ extreme heat/cold ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: With/Type: ☐ Dust mask ☐ Disposable particulate respirator ☐ Replaceable filter particulate w/cartridge _____ ☐ half faced ☐ full face ☐ PAPR (Air recycle) ☐ PPSA (Air supply)

EARS/HEARING			
Work activities such as: ☐ generator ☐ ventilation fans ☐ motors ☐ sanding ☐ pneumatic equipment ☐ punch or brake presses ☐ use of conveyors ☐ other:	☐ grinding ☐ machining ☐ routers ☐ sawing ☐ sparks	Work-related exposure to: ☐ loud noises ☐ loud work environment ☐ noisy machines/tools ☐ punch or brake presses ☐ other:	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ ear muffs ☐ ear plugs ☐ leather welding hood

Attachment A - Risk Assessment

Monthly Facility and Vehicle Self-Inspection Safety Check List

Distribution: °Copy to Safety Committee

Date: _____

ITEM	*COMMENTS*
Housekeeping	
General neatness of work area, including Service trucks	
Adequate and proper storage space fir tools & materials	
Adequate First Aid materials, Sanitary & disposal facilities provided. Eye wash station clean and unblocked	
Waste material containers emptied regularly	
All spills wiped up	
Storage & equipment rooms neat & orderly	
Fire Prevention	
Fire extinguishers checked & vaulable	
Emergency Evacuation plans posted; emergency lighting operable, exit lights working properly	
Proper storage of flammable & combustible materials	
No Blocked Exits/Minimum width of Exit access is at least 36 inches	
Tools, Machinery & Equipment	
Electrical tools properly grounded	
Electrical dangers posted	
Fall protection equipment acceptable	
Machine guards in place	
Maintenance tools in good shape	
Inspections compelted on hoists, slings & chains	
Lights, brakes & warning signals operative-industrial trucks	

Attachment A (cont'd)	
Cutting & Welding & Electrical	
Proper goggles, glasses, gloves & clothing worn-PPE	
Fire hazards removed & flammable materials protected, i.e. oil rags	
Gas cylinders chained & upright with caps used	
Three prong grounding present	
Extension cords are not frayed/NO household extension cords in place. Extension cords used temporarily only	
Proper Lockout/Tagout procedures followed	
Welding shields used when necessary	
Electrical control panels are clearly makred anhd secured. At least 36 inch clearance is maintained	
Ladders	
Ladders inspected and in good condition	
Properly secured to prevent slipping & falling when is use	
Ladder side rail extends 3 feet above landing area	
Metal ladders are not used aorund electrical hazards	
Step ladders fully open when in use	
Ladders located no more than 25 feet of travel	
Material Handling	
Materials properly stored & stacked	
All Industrial Truck drivers have been trained and licensed	
Passageways provided and not blocked	
Personnel lifting loads proper	
Proper lifting techniques used (Observation)	
Flammable Gases & Liquids	
All flammable waste disposed of properly	
Proper storage containers/cans used	
Fire hazards checked	
Proper type of fire extinguishers provided	
SDS sheets are available, accessible and books clean	
Personal Protective Equipment	
Proper eye, ear, face, head and hand protection used	

Attachment A (cont'd)	
Respirators & masks used when necessary	
Proper clothing worn	
Other	
Labels are on ALL containers	
Service Trucks are maintained and contain safety equipment, i.e. fire extinguisher	
Subcontractors on site are following safety guidelines	
Shipping trucks have chocks when loading/unloading	
Monthly safety committee minutes and activities have been communicated to all associates	
Visitors aware of safety requirements, i.e. evacuation route	

Action Taken:

Assignments:

Completion dates of pending areas needing improvements:

Inspection team & Safety Chair_____ Date _____

Attachment B

MGNewell

SITE INSPECTION REPORT FORM

MOBILIZATION

Job#	Date	Report by
Job Type	Welding Controls Elec Svc Mech Svc	

Safety Equipment in Place	
Fire Ext	Permits
Weld Curtain	LOTO
PPE	Harness

Are lines depressurized and drained and other equipment shutdown and ready for M.G. Newell personnel? Yes No N/A
Are all tools & materials unloaded and safely secured? Yes No N/A
Explain

Have photos been taken before work starts? Yes No N/A ***Ask permission first!!!!***
Are there any unsafe conditions observed?* Yes No N/A
If YES, has anyone been notified?* Yes No N/A
Explain

* Refer to Chapter 16 of the Safety Manual for additional details

MGNewell

SITE INSPECTION REPORT FORM

Attachment C

MID JOB DOCUMENTATION

Job#		Date		Report by
Job Type	Welding	Controls	Elec Svc	Mech Svc

Reason for Report	
Change Order Request	Additional Parts Request
Safety Violation	Additional Argon Request
Injury	Other

Change Order Request
Person Requesting Change
Explain Nature of Change

Additional Parts Request
List parts

Additional Argon Request
How many bottles & what grade

Safety Violation*
Customer Notified Yes No If so – Who
Person involved
Explain

Injury*
Customer Notified Yes No If so – Who
Person Involved
Explain

*Refer to Chapter 16 of the Safety Manual for additional details

Attachment D

MGNewell

SITE INSPECTION REPORT FORM

DEMOBILIZATION

Job#	Date	Report by
Job Type	Welding Controls Elec Svc Mech Svc	

Final Job Turnover to Customer	
System Flow or Hydro test	Customer witness & approval
Controls hardware checkout	
Controls software checkout	

Is the work area swept and cleaned of all construction debris and trash? Yes No N/A	
Are all tools & materials loaded and safely secured?	Yes No N/A
Are argon bottles stowed or called in for pick up?	Yes No N/A
Is rental equipment called in for pick up?	Yes No N/A
Explain	

Have photos been taken after work is done? ***Ask permission first!!!!**	Yes No N/A
Are there any unsafe conditions observed?	Yes No N/A
If YES, has anyone been notified?	Yes No N/A
Explain	

Purpose

The purpose of these policies is to provide guidance to all contractual subcontractors on M. G. Newell Corporation ("MG Newell") projects concerning our expectations regarding Safety and Health. These policies have been prepared to guide the subcontractors while working on our projects and are not intended to be all inclusive or replace OSHA regulations or the subcontractor's own safety policies or program. Our subcontractor evaluation process will include a review of the attached Evaluation Form, previous experience with the subcontractor, and any other information available concerning the subcontractor's past work performance.

Scope

These policies apply to all MG Newell subcontractors working on our sites that are contractual subcontractors to MG Newell. The procedures and processes described herein may either be conducted on an annual basis or on a per project basis depending upon the term of the applicable subcontract.

Procedures

The concern for fellow employees should be communicated to MG Newell's subcontractors working on our projects. We will observe our subcontractor's operations and where safety or health problems are noted, identify them to the subcontractors, as well as to our General Manager.

Prior to the start of work, a meeting will be held with the subcontractor to ensure that we have clear lines of communication concerning safety and all other aspects of managing the project. Roles and responsibilities will also be clearly established.

All contracts awarded to subcontractors shall require that Federal and State laws concerning safety are observed by the subcontractor. Failure to fulfill this requirement is a failure to meet the conditions of our contract.

Subcontractors will be included in Project Start Up meetings and all workers on site will be included in the site specific safety orientation for that project.

Any safety violations by subcontractors will be documented. Repeated violations may result in removal from the project.

Evaluation

The form at Attachment A will be used to evaluate subcontractors prior to awarding a contract. Prospective subcontractors may be required to submit copies of their own safety policies or

program. Copies of their training documentation for all exposure areas will be required and evaluated by MG Newell's HR/Safety Director.

Evaluation of subcontractors after they have been awarded a contract will be an ongoing process managed by our General Managers, project manager, and/or our HR/ Safety Director. Any violations of our safety policies or OSHA standards will be documented and a copy sent to our HR/Safety Director and the subcontractor involved for follow up.

After the project has been completed, our Project Manager will meet with our General Manager and/or HR/ Safety Director and evaluate the safety performance of all subcontractors. Any subcontractors with poor safety performance may be excluded from future projects.

Safety Program

While it is not the policy of MG Newell to manage subcontractor's safety programs, we do require that all subcontractors comply with all federal, state and local safety and health regulations. Therefore, as a minimum, subcontractors must have an existing safety program that addresses the following as applicable to their scope of work: Fire Safety, Fall Protection, Electrical Safety, Ladder Safety, Personal Protective Equipment, Permit-Required Confined Space, Crane Safety, Powered Industrial Truck, Lockout/Tagout, Hotwork, GHS/Hazard Communications, and Emergency Procedures.

At the subcontractor pre-construction meeting, our General Manager, Project Manager, and/or HR/Safety Director shall review the subcontractor's safety program, general safety requirements, and the safety and substance abuse requirements of our Welder Services Agreement. All subcontractor safety programs and substance abuse policy/programs must be as strict as the requirements set forth in our policies and programs and the subcontract between MG Newell and the subcontractor.

Testing/Disciplinary Action – MG Newell reserves the right to require that all subcontractor employees be drug screened, within a time frame acceptable to MG Newell, before going to work at our project. Entering into a subcontract and/or commencing work on our project will be contingent on a negative test result. Once a positive test result is received on a subcontractor's employee, that employee will be dismissed from the project for violation of our safety policy.

Compliance - Non-compliance with all safety requirements in any area, if not corrected, shall be documented by the Project Manager by issuing a written notice to subcontractor of known safety violation. Copies of the written notices will be maintained on file in an effort to document the fact that we are taking a proactive approach to correcting safety violations on our jobsite. Noncompliance may require the subcontractor to stop work until the problem can be resolved,

depending on the seriousness of the violation.

Weekly Safety Training Meetings:

All subcontractors are encouraged to conduct their own weekly safety training meetings with their employees. Small subcontractors on special occasions may be invited to attend the weekly MG Newell safety training meeting.

All subcontractors' employees in attendance at an MG Newell meeting must sign in on an attendance form and identify the name of their company. Subcontractors are required to maintain documentation of all safety training meetings that they conduct. Subcontractors must provide our General Manager with a copy of this documentation.

Accident Reports and Investigations:

Subcontractors shall keep MG Newell informed at all times of serious accidents or injuries on the project. Any accident involving damage to property or requiring a trip to the doctor's office is considered serious. A written report of the accident shall be provided to MG Newell c/o HR/Safety Director. All serious accidents must be investigated. Copies of all serious accident investigations must be provided to our General Manager.

Subcontractor Evaluation Form

Subcontractor's Name: _____ Dated Submitted: _____

Safety Contact: _____ Phone Number:_____

It is the policy of M. G. Newell Corporation to only work with subcontractors that share our vision of an accident free workplace. The information provided here will help us determine if you are qualified to be a part of our team. Our HR/Safety Director may contact you with additional questions. Your cooperation with this process will be appreciated.

Copies of appropriate licenses, registrations, and certificates of insurance must be submitted with this form.

Experience Modifiers for the past three policy years:

Current Year _____

Prior Year 1 _____

Prior Year 2 _____

# of OSHA recordable accidents X 200,000 divided by the man hours worked:

Current Year _____

Prior Year 1 _____

Prior Year 2 _____

# of Fatalities for past three years:

Current Year _____

Prior Year 1 _____

Prior Year 2 _____

Do you conduct substance abuse testing? _____

If so, please describe required testing and the applicable disciplinary procedures for positive tests and provide a copy of your written policy for this issue, if any? _____

_____

_____

Describe your safety and health program and the various topics that are included and provide a copy of your written policy for this issue, if any:_____

_____

_____

_____

_____

_____

_____

Describe your safety training program and provide a copy of your written policy for this issue, if any. Proof of training may be checked if you are a successful bidder. _____

_____

_____

_____

_____

_____

Does your company have a full time safety director? Name_____

Does your company have a part time safety director? Name _____

Does your company use a safety consultant, and if so, describe their duties:_____

_____

_____

_____

_____

_____

M. G. Newell Corporation Subcontractor Evaluation

Additional Information

This form must be completed, signed, dated, and submitted to the individual listed below for evaluation prior to submitting bids for projects with M. G. Newell Corporation. This policy becomes effective 11/1/14 the form must be submitted to:

M. G. Newell Corporation
Attn: Garry Moore
P.O. Box 18765
Greensboro, NC 27419

Or email to:
garry.moore@mgnewell.com

Questions:
336-393-0100

If any information provided on the evaluation if found to be fraudulent, your company will be excluded from our list of approved bidders.

Subcontractor's Company Name (Print): _____

Name of Person/Title Submitting (Print): _____

Signature: _____ _____
Print Sign

Date Submitted: _____

Thank You.

Purpose

This program for Hexavalent Chromium is intended to convey the potential hazards associated with working with hexavalent chromium (aka chromium (VI), hexchrome, Cr (VI)) and to provide a means by which employees can protect themselves, their co-employees, the public and the environment. While significant exposure to hexchrome is not expected when conducting normal activities at our work sites, employees shall be informed as to the dangers that are present so they can be aware of the potential hazards.

Chromium is a naturally occurring element found in rocks, animals, plants and soil. This naturally occurring form of chromium is called trivalent chromium (chromium +3 or Cr^{+3}) and is an essential nutrient, meaning that the body needs small amounts of it to maintain health. However, other forms of chromium such as hexavalent and elemental chromium are produced by industrial processes and can cause significant health effects.

Hexchrome exposure can occur by inhalation, ingestion and by skin contact. Inhaling hexchrome dust can result in irritation to the nose, causing runny nose, nose bleeds, ulcers and even holes in the nasal wall upon high exposures. Ingesting or eating hexchrome can result in stomach upset and ulcers as well as kidney and liver damage. Skin contact with hexchrome can cause skin irritation and some individuals have allergic reactions to this material. Finally, studies have shown that excessive exposure to this compound may increase the risk of lung cancer.

The greatest potential for exposure to employees is in industrial facilities where welding operations are being conducted on stainless steel or other chromium containing alloys. Another potential source is contact with portland cement which may have small amounts of hexchrome as a contaminant.

Applicable Regulation

OSHA 1926 CFR 1926.1126 Chromium (VI)

Exposure Assessment

Initial Determination:

Each project shall determine whether the potential for hexchrome exposure exists prior to the start of work. Potential sources of hexchrome exposure may

be identified by management or employees as per the type of work being conducted and the material that is being worked upon. Information related to Hazard Communication should be reviewed in detail. References to coated or painted steel that involves hot work such as torch cutting, welding, brazing, or other application of heat shall be considered potential flags as would any hot work operation on stainless steel or other unidentified metal alloys or mixtures.

Additionally, a survey of the project site should be conducted to ensure that other potential sources are identified prior to work commencing. Ongoing assessment must be conducted as surfaces not visible at the start of a project may become apparent as work progresses.

If the initial determination establishes that hexchrome may be present in coatings or paints, paint chip samples shall be collected and forwarded to an accredited laboratory for analysis. The presence of hexchrome at detectable levels establishes the need for exposure monitoring as described below. Stainless steel surfaces, by definition, contain hexchrome and working on such surfaces utilizing hot methods also requires exposure monitoring.

Activities that may result in chromium exposure:

- Demolition or salvage of structures where chromium or materials containing chromium are present;
- New construction, alteration, repair or renovation of structures, substrates, or portions that contain chromium or chromium containing materials;
- Installation of products containing chromium;
- Working with dry or wet portland cement mixtures that contain hexchrome as a contaminant.

Initial Exposure Monitoring

If the presence of chromium has been confirmed in a material, work activities involving that material shall be subject to exposure monitoring. A representative number of employees conducting the activity shall be identified and personal 8 hr Time Weighted Average (TWA) sampling shall be conducted. The employee expected to have the highest potential chromium exposure shall be included in the representative sampling program.

Periodic Exposure Monitoring

Results less than the Action Level (AL) - If initial monitoring indicates that exposures are below the Action Level of 2.5 ug/m^3, additional monitoring for employees represented by such monitoring is not required.

Results at or above the Action Level (AL) – If initial monitoring results are equal to or greater than the Action Level of 2.5 ug/m^3, periodic monitoring for those activities shall be conducted every 6 months.

Results above the Permissible Exposure Limit (PEL) – If initial monitoring results are greater than the Permissible Exposure Limit of 5.0 ug/m^3, then engineering controls, procedures, administrative controls, or personal protective equipment will be implemented to reduce the exposure level. No employee will be allowed to work in areas above the PEL without appropriate PPE.

Additional exposure monitoring shall be conducted when there has been a change in the production process, raw materials, equipment, work practices, or control methods that are used.

Regulated Areas

If monitoring detects concentrations above the action level, a regulated area will be established in accordance with 1926.1126(h). Change rooms will be provided and all contaminated clothing will be disposed of, or cleaned in accordance with 1926 (g) (3). Eating and drinking will not be allowed in the regulated area.

Employee Notification

Employees shall be notified if their position places them in an environment where they will be exposed to Hexavalent Chromium at any levels, including those below the action levels. This is to inform the employees of the possible dangers associated with Hexavalent Chromium. By educating employees on the dangers of Hexavalent exposure M. G. Newell Corporation, Inc. can help reduce or eliminate the exposures that will be experienced at our facilities and work sites.

Methods of Compliance

Engineering and Work-Practice Controls

Engineering and work practice controls shall be implemented that reduce and maintain employee exposure below the PEL. If M. G. Newell Corporation can demonstrate that such measures are not feasible or sufficient, they shall be used to reduce exposure to the lowest level achievable, and they shall be

supplemented by the use of respiratory protection as described in the Respiratory Protection section of this document.

In the event that M. G. Newell Corporation can demonstrate that a process or task does not result in any employee exposure to hexchrome above the PEL for 30 or more days per year, the requirement to implement engineering and work practice controls does not apply to the task and personal protective equipment can be implemented immediately as an exposure control measure.

Appropriate engineering controls that may be implemented include but are not limited to:

- HEPA vacuum shrouded scalers and grinders
- HEPA vacuum blasters
- Chemical paint stripping
- Dust collection / ventilation
- Removing paint before burning
- Cleaning with HEPA (high efficiency particulate air) filter vacuums;
- Wet methods to remove dust
- Use of long cutting torches to keep employees further away from any fumes that are generated
- Use of local exhaust ventilation equipped with HEPA filtration at the point of fume generation
- Use of mechanical ventilation to move fumes and dust away from employees
- Positioning employees upwind or otherwise outside of visible fume or dust clouds

Hexchrome Program

This document shall be considered the governing compliance program when addressing hexchrome exposure when and **if** it occurs. This will be further supplemented by site-specific programs including the worksite Construction Plan and a Respiratory Protection Program if it is required.

The Construction Plan shall detail:

- all specific elements of the activity
- engineering and administrative controls
- respiratory protection

Where work involving hexchrome is subcontracted out, the subcontractor shall be responsible for providing a Site Specific Compliance Program. This program shall be approved by the M. G. Newell Corporation Safety Director, prior to the subcontractor commencing work.

Respiratory Protection

Respirators shall be handled and worn in accordance with the Respiratory Protection Standard.

Respiratory protection shall be provided in the following situations:

- During the installation of engineering and work practice controls designed to control exposures above the PEL
- During work operations such as maintenance and repair activity for which engineering and work practice controls are not feasible and the exposures are above the PEL
- During work operations where the usage of engineering and work practice controls alone are not adequate to reduce exposures to or below the PEL
- During work operations where employees are exposed above the PEL for less than 30 days per year and M. G. Newell Corporation has elected not to implement engineering and work practice controls to achieve the PEL
- Emergencies

Protective Work Clothing and Equipment

If an operation poses the potential to result in skin or eye contact with hexchrome, M. G. Newell Corporation shall provide protective clothing and equipment to the employee. This will include, but not necessarily limited to disposable coveralls, gloves, respirators, and eye/face protection. Where issued, employees are required to wear this equipment. PPE will be provided to employees at no cost to the employee. Such equipment may be required during the initial installation and implementation of engineering and work practice controls, until monitoring suggests that hexchrome exposure is not a concern.

Removal and Storage

Employees who wear protective clothing to minimize exposure to hexchrome shall comply with the following requirements:

- All protective clothing and equipment shall be removed at the end of the work shift or at the completion of tasks involving exposure to hexchrome

- Hexchrome contaminated clothing shall not be removed from the site, except for by an employee or employee whose job it is to launder, clean or dispose of such equipment
- All potentially contaminated clothing or equipment shall be stored and transported in sealed, impermeable bags or containers and labeled appropriately

Cleaning and Replacement

- M. G. Newell Corporation shall be responsible for laundering, cleaning, repairing or replacing all protective clothing or equipment in order to maintain its effectiveness.
- Hexchrome shall not be removed from clothing by any methods that disperse the material into the air or onto an employee's body. This includes blowing, shaking, slapping or other aggressive means of removal. Vacuuming with a HEPA vacuum would be an acceptable means of removal.
- Any employee involved in laundering or cleaning protective clothing shall be informed of the potential health effects of hexchrome and the need to minimize airborne levels and skin and eye contact.

Hygiene Facilities and Practices

Change Areas

If site conditions require the use of protective clothing or equipment, M. G. Newell Corporation shall provide change areas for employee usage. These areas will be equipped with separate storage facilities for protective work clothing and equipment and for street clothes to prevent cross-contamination.

At no time shall employees leave the job wearing any protective clothing or equipment contaminated by Hexavalent Chromium.

Washing Facilities

M. G. Newell Corporation shall provide washing facilities where employees have potential skin contact with hexchrome. These facilities are supplied with clean water, non-alkaline soap and paper towels.

Employees shall wash exposed skin areas as appropriate to remove dust, cement or other materials. Regardless of whether direct exposure is believed to have occurred, all employees shall wash their hands and face at the end of each

shift and prior to eating, drinking, smoking, chewing tobacco or gum, applying cosmetics or using the toilet.

Eating and Drinking Areas

Employees shall not enter eating and drinking areas while wearing protective work clothing or equipment.

All area eating and drinking surfaces shall be kept as free as practicable of hexchrome. This can be accomplished by periodic HEPA vacuuming and/or wet wiping of all horizontal surfaces.

Prohibited Activities

Employees shall not eat, drink, smoke, chew tobacco or gum or apply cosmetics in areas where skin or eye contact with hexchrome may occur.

Medical Surveillance

M. G. Newell Corporation shall make medical surveillance available, at no cost to the employee and at a reasonable time and place, where employees:

- Are occupationally exposed to hexchrome at or above the PEL for 30 or more days per year
- Are experiencing signs or symptoms of adverse health effects associated with hexchrome exposure
- Are exposed in an emergency

Frequency of Examination

M. G. Newell Corporation will makes medical examinations available:

- Within 30 days of initial assignment, unless the employee has received a hexchrome related medical exam within the past 12 months
- Annually
- Within 30 days after a licensed health care provider provides a written medical opinion recommending an additional examination
- Whenever an employee shows signs or symptoms of adverse health effects associated with hexchrome
- Within 30 days after exposure during an emergency which results in an uncontrolled release of hexchrome

- At the termination of employment, unless the last examination that meets the requirement of the standard was less than 6 months prior to the date of termination

Contents of Examination

Hexchrome medical examinations shall include the following:

- Medical and Work History emphasizing
    - Past, present and anticipated future exposure to hexchrome
    - Any history of respiratory dysfunction
    - Any history of asthma, dermatitis, skin ulceration or nasal septum perforation
    - Smoking status and history
- A physical examination of the skin and respiratory tract; and
- Any tests deemed necessary by the examining healthcare provider

M. G. Newell Corporation shall ensure that the healthcare provider is given the following information:

- A description of the affected employees former, current and anticipated duties related to hexchrome;
- The employees former, current and anticipated levels of occupational exposure to hexchrome;
- A description of the personal protective equipment used or to be used by the employee, including when and how long the employee has used the equipment; and
- Information from records of employment-related medical examinations previously provided to the affected employee that are currently within the control of M. G. Newell Corporation.

M. G. Newell Corporation shall also ensure that the healthcare provider is given a copy of the hexchrome standard.

Healthcare Provider Medical Opinion

The healthcare provider shall provide a medical opinion regarding each examination within 30 days of examining the employee. This medical opinion shall contain the following:

- The providers opinion as to whether the employee has any detectable medical condition that would place the employee at increased risk of material impairment to health from further exposure to hexchrome
- Any recommended limitations on the employee's exposure to hexchrome or on the use of respirators
- A statement that the provider has explained to the employee the results of the medical examination, including any medical conditions associated with hexchrome exposure that require further evaluation or treatment, and any special provisions for protective clothing or equipment

The healthcare provider shall not reveal to M. G. Newell Corporation specific findings or diagnoses not related to occupational exposure to chromium.

M. G. Newell Corporation shall provide the employee with a copy of the healthcare provider's medical opinion within two weeks of receiving it.

Housekeeping

Housekeeping of the work environment can decrease the potential for hexchrome exposure. Appropriate housekeeping methods used when hexchrome exposures are present include:

- All surfaces shall be kept as free as practical of hexchrome accumulations
- Compressed air shall not be used for cleaning;
- Vacuuming is the preferred choice for cleaning, however, wet methods such as washing, wet
  sweeping, wet shoveling and wet brushing may be used when vacuuming is not practical
- Vacuums will be equipped with HEPA filters and shall be emptied in a manner that minimized the dispersion of chromium into the air.

Employee Information and Training

M. G. Newell Corporation shall ensure that all employees are informed of the hazards associated with Hexavalent Chromium. Those employees exposed to Hexavalent Chromium will receive additional information to allow a safer work environment.
This training is in addition to the coverage provided in Hazard Communication training.

Recordkeeping Requirements

Air Monitoring

M. G. Newell Corporation is responsible for maintaining an accurate and complete record of all air monitoring conducted to comply with the requirements of the hexchrome standard. At a minimum, this record shall include:

- Sample dates for all air monitoring
- The operation being monitored
- Sampling and analytical methods being employed and information supporting the accuracy of each
- Number, duration and results of completed samples;
- Type of PPE worn during sampling
- Name, social security number and job classification of all employees being represented by the monitoring, indicating which employees were actually monitored

All support documentation including field worksheets, Chain of Custody form copies and associated documents shall be stored as part of the exposure monitoring record.

All monitoring records shall be maintained and made available to employees in accordance with 29 CFR 1910.1020.

Historical Monitoring Data

In the event that historical monitoring data was used to determine current exposure to hexchrome, the record shall include data that reflects the following:

- The data were collected using methods that meet the accuracy requirements of the standard;
- The processes and work practices that were in use when the historical data were collected are essentially the same as the operation being assessed;
- The hexchrome containing material being assessed is essentially similar to the material assessed in the historical information; and
- The environmental conditions between the current operation being assessed and those present when the historical data were collected are essentially the same.

Objective Data

M. G. Newell Corporation shall maintain a record of all of the objective data that was used to determine employee exposure. This includes the following at a minimum:

- The chromium containing material in question;
- The source of the objective data
- The testing protocol and results of testing regarding the release of chromium from the material under typical conditions
- A description of the process, operation or activity and how that supports the determination that was made
- Other data relevant to the process, operation, activity, material or employee exposures

Medical Surveillance

M. G. Newell Corporation shall maintain an accurate record for each employee covered by medical surveillance. The record shall include the following:

- Employee name and social security number
- A copy of the health care provider's written opinion
- A copy of the information provided to the health care providers as required by the standard

Responsibilities

Project Management shall:

- Assess operations and project conditions in which employees or the general public may be
- exposed to hexchrome
- Institute engineering and work practice controls whenever feasible to reduce employee exposure to
- Provide all necessary Personal Protective Equipment, respirators, hygiene facilities, etc. for employees performing operations with hexchrome exposure.
- Provide training for employees performing operations with potential hexchrome exposure;
- Ensure all employees working with hexchrome are familiar with the M. G. Newell Corporations medical surveillance program
- Maintain all employee medical surveillance records and hexchrome monitoring records

The Employee shall:

- Follow up on procedures or work plans established by their supervisors for working with hexchrome exposures
- Use all personal protective equipment issued to them for use when working with hexchrome exposures
- Take part in the project's medical surveillance program when working with hexchrome exposures

Safety and Health Program

Chapter 21

MSDSs Appendix

Revised July, 2013

MGNewell			Initial Issue Date	7/1/18
			Revision Date:	
Stop Work Authority			Revision No.	
			Next Revision Date:	
Preparation: H R Dir.	Authority: President	Issuing Dept. H R / Safety	Page:	Page 1 of 1

Purpose

The Stop Work Authority process involves a stop, notify, correct and resume approach for the resolution of a perceived unsafe condition, act, error, omission or lack of understanding that could result in an undesirable event. All M. G. Newell employees have the authority and obligation to stop any task or operation where concerns or questions regarding the control of health, safety or environmental risks exist.

Scope

This program applies to all M. G. Newell projects and operations.

Key Responsibilities

- Employees are responsible to initiate a Stop Work intervention when warranted and management is responsible to create a culture where SWA is exercised freely.
- Supervisors are responsible to ensure a culture is created where SWA is exercised and honored freely to resolve issues before operations resume and recognize proactive participation.
- Management must establish and support clear expectations to exercise SWA, create a culture where SWA is exercised freely and hold those accountable that chose not to comply with established SWA policies.

Stop Work Authority Procedure

- When an unsafe condition is identified the Stop Work intervention will be initiated, coordinated through the manager or project engineer, initiated in a positive manner, notify all affected personnel and supervision of the stop work issue, correct the issue and resume work when safe to do so.
- No work will resume until all stop work issues and concerns have been adequately addressed.
- Any form of retribution or intimidation directed at any individual or M. G. Newell for exercising their right to issue a stop work authority will not be tolerated by the host nor by M. G. Newell.

Follow-Up

- All Stop Work interventions shall be documented for lessons learned and corrective measures to be put into place.
- Stop Work reports shall be reviewed by the Director of Engineering and Director of Human Resources in order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of learning.
- It is the desired outcome of any Stop Work intervention that the identified safety concern(s) have been addressed to the satisfaction of all involved persons prior to the resumption of work. Most issues can be adequately resolved in a timely manner at the job site, occasionally additional investigation and corrective actions may be required to identify and address root causes.

Training

Employees shall receive Stop Work Authority training before their initial assignment. The training will be documented including the employee name, the dates of training and subject matter.

Purpose

The purpose of this chapter is to address proper machine guarding, and the proper use of compressors and various pneumatic, portable, and power tools.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

Machine Guarding

Before operating any machine, every employee must have completed a training program on safe methods of machine operations. It is the primary purpose of supervision to ensure that employees are following safe machine operating procedures. There will be a regular program of safety inspection of machinery and equipment. All machinery and equipment must be kept clean and properly maintained. There must be sufficient clearance provided around and between machines to allow for safe operations, set up, servicing, material handling and waste removal. All equipment and machinery should be securely placed, and anchored when necessary, to prevent tipping or other movement that could result in personal injury. Most of the time, machinery should be bolted to the floor to prevent falling during an earthquake, and the electrical cord to the machinery fixed with a breaker or other shut-off device to stop power in case of machine movement. There must be a power shut-off switch within reach of the operator's position at each machine. Electrical power to each machine shall be capable of being locked out for maintenance, repair or security. The non-current carrying metal parts of electrically operated machines must be bonded and grounded. The foot-operated switches are guarded and/or arranged to prevent accidental actuation by personnel or falling objects. All manually operated valves and switches controlling the operation of equipment and machines must be clearly identified and readily accessible. All EMERGENCY stop buttons are colored RED. All the pulleys and belts which are within 7 feet of the floor or working level are properly guarded. All moving chains and gears must be properly guarded. All splash guards mounted on machines that use coolant must be positioned to prevent coolant from splashing the employees. The supervisor will instruct every employee in the work area on the methods provided to protect the operator and other employees in the machine area from hazards created by the operation of a machine, such as nip points, rotating parts, flying chips and sparks. The machinery guards must be secure and arranged so

they do not present a hazard. All special hand tools used for placing and removing material must protect the operator's hands. All revolving drums, barrels and containers should be guarded by an enclosure that is interlocked with the drive mechanisms, so that revolution cannot occur unless the guard enclosure is in place. All arbors and mandrels must have firm and secure bearings and be free of play. A protective mechanism has been installed to prevent machines from automatically starting when power is restored after a power failure or shutdown. Machines should be constructed so as to be free from excessive vibration when the size tool is mounted and run at full speed. If the machinery is cleaned with compressed air, the air must be pressure controlled and personal protective equipment or other safeguards used to protect operators and other workers from eye and bodily injury. All fan blades should be protected by a guard having openings no larger than 1/2 inch when operating within 7 feet of the floor. Saws used for ripping equipment must be installed with anti-kickback devices and spreaders. All radial arm saws must be arranged so that the cutting head will gently return to the back of the table when released. All guards on abrasive wheel machinery will installed per the manufacturers recommendations and set to OSHA standard gaps. Abrasive wheels have been inspected periodically and replaced as needed if damage or defects in the wheel are reported. If replacement is required, the new wheel will be selected based on the RPM rating and acceptable diameter limit of the machine.

Compressors, Compressed Air, and Pneumatic Tools

All compressors must be equipped with pressure relief valves and pressure gauges. All compressor air intakes must be installed and equipped to ensure that only clean, uncontaminated air enters the compressor. Every air receiver must be provided with a drain pipe and valve at the lowest point for the removal of accumulated oil and water. Compressed air receivers must be periodically drained of moisture and oil. All safety valves shall be tested frequently and at regular intervals to determine whether they are in good operating condition. A current operating permit issued by the Division of Occupational Safety and Health shall be maintained. The inlet of air receivers and piping systems must be kept free of accumulated oil and carbonaceous materials. Pneumatic tools shall be employed only when conventional powered tools are unavailable or would be able to perform a required task more effectively. PPE including but not limited to eye protection, face shield, respirator, and protective sleeves shall be used as needed. Prior to use tool should be inspected and tested for proper operation before setting about the required task. Tools shall be maintained on a regular basis as recommended by the tool manufacturer.

Portable Electric and Power Tools

The workplace will be aware of the OSHA Electrical Safety Orders and will comply with the same. Employees will be required to report any hazard to life or property that is observed in connection with a job, electrical equipment or lines. Equipment such as electrical tools or appliance must be grounded or of the double insulated type. Extension cords being used must have a grounding conductor. The workplace supervisor must be aware if multiple plug adaptors are prohibited. If ground-fault circuit interrupters are installed on each temporary 15 or 20 amperes, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed, temporary circuits must be protected by suitable disconnecting switches or plug connectors with permanent wiring at the junction. Exposed wiring and cords with frayed or deteriorated insulation must be repaired or replaced. Flexible cords and cables must be free of splices or taps. Clamps or other securing means must be provided on flexible cords or cables at plugs, receptacles, tools, equipment. The cord jacket must be held securely in place. All cord, cable and raceway connections must be intact and secure. In wet or damp locations, electrical tools and equipment must be appropriate for the use or location, or otherwise protected. All Powered tools shall be inspected for proper operation prior to use. Only the proper manufacturer recommended wear components (cutting bladed, abrasive disk, etc.) shall be used. Any wear component that shows signs of fatigue or damage shall be discarded and replaced prior to being put into service.

Tools shall be maintained per the manufacturer's recommended schedule and routine.

Hand Tool Safety.

Only trained and/or experienced employees may use/operate tools or equipment. Tools and equipment shall not be modified and they are to be used only for their designed purpose. It shall be the responsibility of the employee to inspect tools and equipment prior to use and to use all tools and equipment in a safe manner. Employees observed abusing, altering, modifying or misusing tools or equipment shall be subject to disciplinary action. Employees shall wear all appropriate personal protective equipment while using tools and equipment. Additionally, if a tool or piece of equipment is found to be defective, the tool/equipment shall be tagged, taken out of service until it can be replaced or repaired by a qualified person.

It shall be the responsibility Project Manager or Site Superintendent to designate a competent person who will be assigned to be responsible for testing/inspecting and repairing all tools and equipment. All periodic inspections, maintenance and repairs of tools or equipment shall be documented.

Inspection and Maintenance:

All tools shall be identified and inventoried either individually or by group.

All tools in the inventory shall have a documented inspection at least once every six months. In addition (if applicable) to these periodic documented inspections all tools shall be inspected prior to issue and upon return by the tool room attendants and prior to each use by the user.

All tools will be kept in good working condition with no modifications.

All periodic inspections and all maintenance & repairs shall be documented. Completed forms shall be kept in a binder in the tool room or tool trailer for one year. The binder shall contain a copy of the inspection checklist for the type for tools and/or equipment being inspected.

- **Selection**
  Use the right tool for the task instead of trying to make the wrong one fit.

- **Use**
  Keep control of yourself, the tool, and the job. When applying force with a tool, remember that it may slip, break, or just suddenly do its job.

  Watch your hands and your balance (body mechanics) to avoid injury.

  Vibration Absorbing Gloves are to be made available to workers using pneumatic impact guns or other vibrating equipment. These gloves are required PPE for worker's operating heavy vibrating tools (i.e. jack hammers, 90 guns, impact guns etc.). The use of these gloves are designed to dampen vibration, dissipate impact and absorb shock, they can assist in the prevention of cumulative trauma injury often associated with operating this type of equipment. They only work if you use them.

  Select the right protective equipment for the task and use it properly.

  Do not use tools and equipment that you have not been trained to use.

- **Care**
  Take proper care of your tools and equipment. Keep them stored where they will not get damaged and will not present a hazard.

Check your tools and equipment prior to use for defects, wear, or damage. Immediately remove from service and tag any defective tools. Damaged tools shall be turned into the tool room for repair or replacement.

- **Supervision**
  Supervisors shall be responsible for ensuring that employees are trained before using a specific tool. Watch your employees at work. Ask them about their immediate assignment and take an interest in finding the safest way to do the job. Then follow up to insure that the tools and equipment in your area are being used safely.

Hand Tool Safety (Unpowered)

Hand tools shall only be used for the purpose for which they are intended.

All appropriate PPE will be worn while using hand tools.

Wrenches, including adjustable, pipe and socket shall not be used when jaws are sprung to the point of slippage.

Pipe wrench parts (i.e., jaws) are not to be removed and used for anything other than the manufactured use.

The use of snipes and cheater bars or double wrenching to gain leverage **is prohibited.**

Always use tool holder while using hammer and knocker wrenches.

Hand tools shall be tagged and removed from service if any of the following defects are present:

- Impact tools, such as hammers, flange wedges chisels, drift pins, pin bars and knocker wrenches with visible signs of mushrooming, cracking or bending.
- Wooden handle tools, such as hammers, picks, shovels, and brooms with visible sign of cracking, loosening or splintering of the handle.
- Wrenches, such as adjustable, combo and pipe with visible signs of bending, cracking, defective handles or other defects that impair their strength.

Electrical Power Tool Safety

All appropriate PPE will be worn while using power tools.

Be sure that the proper permit has been obtained prior to use of electrical power tools.

GFCI's are to be used with all portable electric equipment. GFCI's are to be inspected and tested prior to each use.

Do not connect electrical power unless the operating switch is turned off.

Employee shall avoid loose fitting clothing when operating power tools.

The power source on tools shall be physically disconnected prior to attempting any repairs or attachment replacement.

Protective guards on power tools **shall not** be removed, altered or modified.

Trigger/switch locks on power tools are prohibited.

All electrical tools and power cords must be inspected per the Electrical Equipment Safety and Inspection Policy.

Electrical tools and power cords must display the current inspection color code for the current inspection period to it being placed in service.

Electrical tools **shall not** be hoisted or carried by their power cords.

Cords are tripping hazards. Route them so as to minimize interference in walkways. Overhead is preferred.

Electrical power tools shall be tagged and removed from service if any of the following defects are present:

- Electrical power tool cord does not have current inspection color code.
- Power cord is frayed, cut or damaged. The use of electrical tape to cover damage to cords **is prohibited**.
- Defective or faulty on/off switches.
- Loose or defective components

Powder Actuated Tool Safety

Not applicable. This type of tool is not in service.

Purpose

The purpose of this program is to establish procedures for Manual Lifting. General principles of Ergonomics will also be addressed.

Scope

This program applies to all M.G. Newell associates and authorized subcontractors who supervise or perform manual lifting duties in the scope of their duties and responsibilities.

Procedures

- Before manual lifting is performed, a hazard assessment will be completed of the task(s) to be performed. The hazard assessment must consider the size, bulk, weight of the object(s), if mechanical lifting equipment is required, if two-man lift is required, whether vision is obscured while carrying, and the walking surface and path where the object is to be carried.
- Ergonomics is the science of designing the job to fit the worker and aims to reduce potential musculoskeletal injuries. Affected associates and/or authorized subcontractors will be trained to understand the principles of Ergonomics to include, ergonomic risk assessments, procedures for reporting hazardous conditions to supervision, and early reporting of discomfort. Ergonomic risk factors will be considered including (1) High Task Repetition, (2) Forceful Exertions (3) Repetitive/Sustained Awkward Postures.
- Job specific training will be conducted on safe lifting techniques and work practices, potential hazards, and controls.
- All musculoskeletal injuries caused by improper lifting will be investigated and documented per the accident investigation procedures outlined in Chapter 18 of this manual. Results of the accident investigation and “lessons learned” will be incorporated into revised work procedures and future training.
- Two person lifts are required if at any time the use of lifting equipment is impractical or impossible.
- Management and supervisors will periodically evaluate the work areas and worker behavior to assess the potential and prevention of injuries. New operations or processes will be evaluated to engineer out hazards before those new work operations or processes are implemented.
- Where possible, manual lifting equipment should be used instead of manual lifting. Manual lifting equipment will be provided to the affected M.G. Newell associate such as dollies, hand trucks, jacks, carts, and hoists. Other engineering controls should also be considered.

Purpose

The purpose of this chapter is to address the safe use of Rigging operations. This will be applicable to M.G. Newell personnel, and/or rigging subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

Lifting Equipment Rated Capacity

Rigging equipment must have permanently affixed and legible identification markings as prescribed by the manufacturer that indicate the recommended safe working load. Rigging must not be loaded in excess of its recommended safe working load as prescribed on the identification markings by the manufacturer; and must not be used without affixed, legible identification markings.

Hoisting and Rigging Safety Program

A thorough annual inspection of the hoisting machinery shall be made by a competent person, or by a government or private agency recognized by the U.S. Department of Labor. A record of the dates and results of inspections and rated load tests for each hoisting machine and piece of equipment shall be maintained. This inspection requirement extends to any subcontractors working for M.G. Newell.

Any defects found will be repaired by a qualified person before the crane is used. Before a crane is placed in service for use, rope components shall be inspected by a qualified person for defects, damage, and deformities and at least monthly thereafter. Certification of this inspection shall be in writing and document the date of inspection; inspector's name and signature; and identification number of the rope component inspected.

Inspection of wire rope

Wire rope shall be taken out of service when any of the following conditions exist:

- In running ropes, 6 randomly distributed broken wires in 1 lay or 3 broken wires in one strand in one lay.
- Wear of 1/3 the original diameter of outside individual wires.
- Kinking, crushing, bird caging, or any other damage resulting in distortion of the rope structure.
- Evidence of any heat damage from any cause.
- Reductions from nominal diameter of more than 1/64 inch for diameters up to and including 5/16-inch, 1/32-inch for diameters, 3/8-inch to and including 1/2-inch, 3/64-inch for diameters 9/16-inch to and including 3/4 inch, 1/16 inch for diameters 7/8 inch to 1 1/8 inches inclusive, 3/32 inch for diameters 1 1/4 to 1 1/2 inches inclusive;
- In standing ropes, more than 2 broken wires in 1 lay in sections beyond end connections or more than 1 broken wire at an end connection.

- Wire rope safety factors shall be in accordance with American National Standards Institute B 30.5-1968 or SAE J959-1966.

Heavy wear and/or broken wires may occur in sections that have contact with equalizer sheaves or other sheaves (where rope travel is limited) or with saddles. Particular care shall be taken to inspect ropes at these locations.

If rope has not been used for a month or longer (i.e., due to shut down or storage of a crane on which it is installed) this rope shall be given a thorough inspection before it is used.

This inspection shall be made by a designated person who is authorized by M.G. Newell.
This inspector shall examine rope for any kind of damage, deterioration or defect that might compromise the safety and specifications of the rope. Specific attention and care shall be given to the inspection of non-rotating rope.

Only this designated and authorized inspector shall give approval for use of this rope following satisfactory safety inspection as described above.

A written record of the inspector's certification shall be maintained by the Safety Coordinator in a file and be readily available for review and confirmation. This certification shall include the inspection date, name and signature of the inspector, and the identification number of the rope component that was inspected. Subcontractor inspection records shall be available if requested by M.G. Newell.

Inspection of hoist chains
Hoist chains and end connections shall be inspected daily for damage, deterioration, excessive wear, twist, distorted links interfering with proper function, or stretch beyond manufacturer's recommendations.

Chains shall be inspected visually by the operator each day or before first use.

Chains also shall be inspected monthly for safety certification. The written certification shall include the date of inspection, name and signature of the inspector, and the identification number of the chain that was inspected. Written certification records shall be maintained by the Safety Coordinator in a file.

Inspection of hooks and hook components
Crane hooks and safety latches shall be visually inspected each day or at the beginning of a shift prior to use for damage, cracks, or deformation.

Hooks and safety latches also shall be inspected monthly for safety certification. The written certification shall include the date of inspection, name and signature of the inspector, and the identification number of the hook that was inspected. Written certification records shall be maintained by the Safety Coordinator in a file.

Hooks that have cracks or a throat opening that is greater than 15 percent more than normal or more than 10-degree twist from the plane of the unbent hook shall be discarded.

Preventive maintenance
M.G. Newell will perform regular preventive maintenance on any rigging equipment it may possess to help ensure the safety of cranes, hoists, rigging and related equipment. Preventive maintenance shall be

performed in accordance with manufacturer's recommendations. Each crane shall have a written record of preventive maintenance that is maintained by the Safety Coordinator.

Type of Inspection	*Who?*
Modified or repaired/adjusted	*Qualified person*
Post-assembly	*Qualified person*
Shift	*Competent person*
Monthly	*Competent person*
Annual	*Qualified person*

Qualified Riggers

All riggers of M.G. Newell or a subcontractor will be qualified person for the performance of specified hoisting activities such as during assembly/disassembly work and those that require employees to be in the fall zone to handle a load. The rigger would be considered qualified through possession of a recognized degree, certificate, or professional standing; or by extensive knowledge, training, and experience, successfully demonstrating the ability to solve/resolve problems related to rigging work and related activities.

Signal Persons:

- *Qualification Requirements:*
  - *Know & understand signals*
  - *Competent in using signals*
  - *Basic understanding of crane operation*
  - *Verbal or written test plus practical test*

Qualified How	*Documentation*	*Portable*
Third party qualified evaluator	*Yes*	*Yes*
Employer qualified evaluator	*Yes*	*No*

Execution of the Lift

Properly rated equipment shall be used as described above. Tag line shall be used unless their use creates an unsafe condition. All employees shall stay clear of loads about to be lifted or already suspended. Areas should be marked off when possible.

Subcontractors

This procedure is meant to ensure M.G. Newell uses rigging subcontractors that have qualified personnel, and the subcontractor has implemented appropriate measures to guarantee all OSHA safety guidelines are being met. It does not attempt to instruct or supervise the subcontractor personnel in how

to perform their jobs. Decisions made in the performance of a job are the direct responsibility of the rigger management. In addition, it is the responsibility of the subcontractor management to train their own personnel and provide an adequate work force with equipment appropriate for the job.

Purpose

The purpose of this chapter is to address Cadmium Awareness. This will be applicable to MG Newell personnel, and/or subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

Purpose: While M.G. Newell does not expect any exposure to Cadmium, if the job or project that we are working is determined to contain or potentially expose our employees, then we will work with the client to first determine if the hazard can be engineered out or if we will need to establish a protocol using this policy to safely perform the work. The equipment and processes that typically contain Cadmium will be identified by the work permit and or job hazard analysis systems. Procedures for elimination or minimization of exposure will be the 1st line of defense. Special precautions will be exercised when maintenance of ventilation systems and changing of filters is performed.

Appearance: Cadmium metal-soft, blue-white, malleable, lustrous metal or grayish white powder. Some cadmium compounds may also appear as a brown, yellow, or red powdery substance. Cadmium can cause local skin or eye irritation. Cadmium can affect your health if you inhale or if you swallow it. Cadmium that may be immediately dangerous to life or health occur in jobs where workers handle large quantities of cadmium dust or fume; heat cadmium-containing compounds or cadmium-coated surfaces; weld with cadmium solders or cut cadmium-containing materials such as bolts.

The program will be evaluated and updated as needed on an annual basis.

Exposure Limit: TWA PEL 8-Hour (time weighted average, permissible exposure limit) is Five (5) micrograms of cadmium per cubic meter of air 5 ug/m^3, time weighted average for an 8- hour workday. If the PEL is exceeded, this policy will be implemented.

Training

- Only trained and qualified personnel may operate or maintain welding, cutting or brazing equipment. Welders/Cutters who may be exposed or have the potential to be exposed will be trained per this policy and will possess the appropriate certifications for their work scope.

- Any Craft or Trade required to perform any of the functions covered by this policy will be required to complete training per M.G. Newell Training policy including:
  - A test or other method to determine competency.
  - Training initial to assignment and at least annually thereafter.
  - All training records shall be documented and kept on file with Human Resources for at least one year or for the duration of the covered employee's employment.

- Documentation will include outline or class name, the names and employee numbers of the employees who participated in the training, names and signatures of those who trained the class and a class date.

Medical Surveillance/Written Exposure Plan:

While the company work should not expose employees to, at or above the action level, if those levels are reached, then a written exposure plan including annual reviews and updates will be required. Should employee(s) become exposed to, at or above action levels related to work exposures and cadmium, then employees will receive a medical evaluation, which will include tests to determine exposure and a medical history. This is provided at no cost to the employee. As with all medical records, these are kept strictly confidential. The employee or representative is entitled to see the records of measurements of the exposure. The employee can also request that medical records for exposure be furnished to the employee's personal physician or designated representative. The written program will be provided for examination and copying upon request of affected employees and their representatives.

Respiratory Protection Program – If respiratory protection is required, see the company's Respiratory Protection Program for complete guidelines to respiratory protection.

Emergency Procedures:

First Aid for eye exposure – direct contact may cause redness or pain. Wash eyes immediately with large amounts of water and seek medical attention immediately.

First Aid for skin exposure – direct contact may result in irritation. Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water. Get medical attention immediately.

Ingestion may result in vomiting, abdominal pain, nausea, diarrhea, headache, and sore throat. Treatment for symptoms must be administered by medical personnel. Get medical attention immediately.

Inhalation – if large amounts of cadmium are inhaled, the exposed person must be moved to fresh air at once. Get medical attention immediately.

Rescue – move affected person from the hazardous exposure. If the exposed person has been overcome, attempt rescue only after notifying at least one other person and put into effect established emergency procedures.

Respirators – you may be required to wear a respirator for work related to this type of exposure or for emergency response. Only use respirators approved by MSHA and NIOSH. Cadmium does not have a detectable odor except at levels well above the PEL. If you can smell cadmium while wearing a respirator, proceed immediately to fresh air.

PPE – you may be required to wear impermeable clothing, gloves, splash-proof or dust resistant goggles, face shield or other appropriate PPE to prevent skin contact with cadmium.

Purpose

The purpose of this chapter is to address the Frist Aid Program. This will be applicable to MG Newell personnel, and/or subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

FIRST AID AND MEDICAL TREATMENT

M.G. Newell provides a First Aid Kit on the premises. It is there for employee's use in the treatment of minor scratches, burns, headaches, nausea, etc. All employees shall know the location of the First Aid Kit and shall notify their supervisor if they need to use the First Aid Kit.

If an employee has a work-related injury or illnesses that requires professional medical assistance, they shall notify their supervisor and let him/her know before they receive this assistance. If they fail to notify their supervisor, they may be ineligible for Worker's Compensation, benefits to pay for doctor's bills, and/or lost wages.

COMPANY will ensure designated first aiders have a valid certificate in first aid training from an authorized organization, and shall be contacted to render first aid, as necessary. In the absence of an infirmary, clinic, or hospital in near proximity to the workplace, a person or persons shall be available and adequately trained to render first aid.

The Contracted Vendor: Cintas shall inspect First Aid Kits before the kits are sent out to each job and on a weekly basis to ensure that they are filled and complete.

FIRST AID PROCEDURES AND INSTRUCTIONS

<u>Minor First Aid Treatment</u>

First aid kits are stored in the Warehouse, Welding Station, Corp Office, and Training Room. If an employee sustains an injury or are involved in an accident requiring minor first aid treatment, they shall:

- Inform their supervisor.
- Administer first aid treatment to the injury or wound.
- If a first aid kit is used, indicate usage on the accident investigation report.
- Access to a first aid kit is not intended to be a substitute for medical attention.
- Provide details for the completion of the accident investigation report.

Non-Emergency Medical Treatment

For non-emergency work-related injuries requiring professional medical assistance, management must first authorize treatment. If an employee sustains an injury requiring treatment other than first aid, they shall:

- Inform their supervisor.
- Proceed to the posted medical facility. The supervisor will assist with transportation, if necessary.
- Provide details for the completion of the accident investigation report.

Employees shall use the nearest wash facility or eyewash station in the event an employee accidentally spills or splashes injurious chemicals or liquids on their clothing or body. The employee will also notify the Supervisor as soon as possible.

Emergency Medical Treatment

If an employee sustains a severe injury requiring emergency treatment:

- Call for help and seek assistance from a co-worker.
- Use the emergency telephone numbers and instructions posted next to the telephone in your work area to request assistance and transportation to the local hospital emergency room.
- Provide details for the completion of the accident investigation report.

First Aid Training

Each designated first aider will receive training and instructions from his or her supervisor on the following M.G. Newell first aid procedures. All designated first aiders will have a valid certificate in first aid training from an authorized organization and shall be contacted to render first aid.

WOUNDS:

Minor: Cuts, lacerations, abrasions, or punctures-

- Wash the wound using soap and water; rinse it well.
- Cover the wound using clean dressing.

Major: Large, deep and bleeding

- Stop the bleeding by pressing directly on the wound, using a bandage or cloth.
- Keep pressure on the wound until medical help arrives.

BROKEN BONES:

- Do not move the victim unless it is absolutely necessary.
- If the victim must be moved, "splint" the injured area. Use a board, cardboard, or rolled newspaper as a splint.

BURNS:

Thermal (Heat)

Rinse the burned area, without scrubbing it, and immerse it in cold water; do not use ice water. Blot dry the area and cover it using sterile gauze or a clean cloth.

Chemical

Flush the exposed area with cool water immediately for 15 to 20 minutes.

EYE INJURY:

Small particles

Do not rub your eyes.

Use the corner of a soft, clean cloth to draw particles out, or hold the eyelids open and flush the eyes continuously with water.

Large or stuck particles

If a particle is stuck in the eye, do not attempt to remove it.

Cover both eyes with bandage.

Chemical

Immediately irrigate the eyes and under the eyelids, with water, for 30 minutes.

NECK AND SPINE INJURY:

If the victim appears to have injured his or her neck or spine, or is unable to move his or her arm or leg, do not attempt to move the victim unless it is absolutely necessary.

HEAT EXHAUSTION:

Loosen the victim's tight clothing.

Give the victim "sips" of cool water.

Make the victim lie down in a cooler place with the feet raised.

CPR (Cardiopulmonary Resuscitation)

Alternative names: Rescue breathing, chest compressions - for adults; resuscitation, cardiopulmonary - for adults

Definition: CPR is a combination of rescue breathing (which provides oxygen to the victim's lungs) and chest compressions (which keep the victim's heart circulating oxygenated blood).

Considerations: CPR can be lifesaving, but it is best performed by those who have been trained in a CPR course. The procedures described here are not a substitute for CPR training.

Time is very important when dealing with an unconscious who is not breathing. Death can occur in 8 to 10 minutes and brain death begins after 4 to 6 minutes without oxygen.

Causes: Cardiopulmonary arrest is a combination of 2 life-threatening conditions: absence of

breathing and no heartbeat.

Symptoms:

- No Breathing
- No pulse
- Unconsciousness

DO NOT:

- DO NOT give chest compressions if there is a heartbeat; doing so may cause the heart to stop beating.
- DO NOT move the victim's head or neck to check for breathing if a spinal injury is suspected.

Call immediately for emergency medical assistance if:

- you are not alone, have one person call the local emergency number while another person begins CPR.
- you are alone, shout for help and administer CPR.

FIRST AID:

1. Check for consciousness. Shake or tap the victim gently. See if the victim moves or makes a noise. Shout, "Are you OK?"

2. If there is no response, shout for help.

3. Position the victim on his or her back on a hard surface, keeping the back in a straight line, supporting the head and neck. Unfasten the victim's clothing if necessary to gain access to the victim's chest.
4. Kneel next to the victim's chin. Tilt the head back and lift the jaw forward to move the tongue away from the windpipe. If a spinal injury suspected, pull the jaw forward without moving the head or neck. Don't let the victim's mouth close.

5. Place your ear close to the victim's mouth and watch for chest movement. For 5 seconds, look, listen, and feel for breathing.

6. If the victim is not breathing, begin rescue breathing. Maintain the head position, close the victim's nostrils by pinching them with your thumb and index finger, and cover the victim's mouth tightly with your mouth. Give 2 slow, full breaths, with a pause in between.

7. If the chest does not rise, reposition the head and give 2 more breaths. If the chest still doesn't rise, the victim's airway is blocked. Follow instructions for chocking

Chocking Symptoms:

- unconscious
- lack of breathing
- inability to move air into the lungs with mouth-to-mouth resuscitation

DO NOT:

- DO NOT try to grasp an object that is lodged in the victim's throat. This might push it farther down the airway. If the object is visible in the mouth, it may be removed.
- DO NOT begin the chest compressions of CPR (if heartbeat has stopped) until the airway is cleared.

FIRST AID:

1. Roll the victim onto their back on a hard surface, keeping their back in a straight line, firmly supporting their head and neck. Expose the victim's chest.

2. Open the victim's mouth with your thumb and index finger, placing your thumb over his tongue and your index finger under his chin. If the object is visible and loose, remove it.

3. Lift the victim's chin while tilting the head back to move the tongue away from the windpipe. If a spinal injuyr is suspected, pull the jaw forward without moving the head or neck. Don't let the mouth close.

4. If the victim is not breathing, begin rescue breathing. Maintain the head position, close the victim's nostrils by pinching them with your thumb and index finger, and cover the victim's mouth tightly with your mouth. Give 2 slow, full breaths, with a pause in between.

5. If the victim's chest does not rise, reposition the head and give 2 more breaths.

6. If the victim's chest still doesn't rise, begin abdominal thrusts, as follows. Kneel at the victim's feet or astride the thighs (or to the side if the victim is obese or pregnant). Place the heel of your hand in the middle of the abdomen just above the navel, well below the tip of their breastbone. (If the victim is obese or pregnant, place the heel of your hand in the middle of the victim's breastbone. Do not place your hand on the ribs or on the tip of the breastbone.) Place your other hand on top of the first hand.

7. Give 6 to 10 quick thrusts compressing the victim's chest about 2 inches, pressing your hands inward and upward. Do not press to either side. Each thrust is a separate attempt to clear the victim's airway by forcing air out through the windpipe.

8. Open the victim's mouth with your thumb and index finger. If the object is visible and loose, remove it. Observe the victim's breathing. If the infant stops breathing, begin CPR.

9. If the object is not dislodged, give 2 breaths, 6 to 10 abdominal thrusts, and then check for the object. Repeat this sequence until the object is dislodged or help arrives.

8. If the victim's chest does rise, place 2 fingers on the victim's Adam's apple. Slide your fingers into the groove between the Adam's apple and the muscle on the side of their neck to feel for a pulse for 5 to 10 seconds.

9. If the victim has a pulse, give 1 breath every 5 seconds. Check the pulse after every 12 breaths.

10. Be sure the local emergency number has been called. Have someone else make the call if possible. Continue giving breaths and checking the pulse.

11. If the victim has no pulse, begin chest compressions. Maintain the head position and place the heel of your hand 2 finger-widths above the lowest notch of the victim's breastbone (where the lower edge of the ribcage meets in the middle). Place the heel of your other hand directly over the heel of the first hand. Interlock your fingers; don't let them touch the victim's chest. Lock your elbows straight. Lean your shoulders over your hands, and firmly press down about 2 inches into the victim's chest. Repeat the compressions continually. Give the compressions in a smooth, rhythmic manner, keeping your hands on the victim's chest. Don't rock back and forth - push straight down. Don't pause between compressions.

12. Give the victim continuous chest compressions. Count aloud as you pump in a regular rhythm. You should pump at a rate of about 80 to 100 times a minute. Count 1 and 2 and 3 and 4 and...15 and (breathe, breathe). <to the to the rhythm of “Staying Alive” song by the Bee Gees>.

13. Recheck the victim's pulse for 5 to 10 seconds.

14. Repeat steps 12 and 13 until the victim's pulse resumes or help arrives. If the pulse resumes, go to step 9.

15. Once pulse and respiration resume, roll the person onto his side taking care to move the body as a whole unit. This is called the recovery position, but it should not be used if you suspect there might be a neck or spinal injury. Stay by the person until help arrives.

Prevention:
Be prepared and use good judgment.

Purpose

The purpose of this chapter is to address Heat and Cold Stress. This will be applicable to MG Newell personnel, and/or subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

The company has developed this program to address the hazards associated with heat- and cold-related illness.

Heat Stress

Heat stress takes place when your body's cooling system is overwhelmed. It can happen when heat combines with other factors such as:

- hard physical work;
- fatigue (not enough sleep);
- dehydration (loss of fluids); and
- certain medical conditions.

Heat stress can lead to illness or even death. The company has a duty to take every precaution reasonable in the circumstances to protect their workers.

Heat stress symptoms

Heat rash: itchy red skin.
Heat cramps: painful muscle cramps.
Heat exhaustion: high body temperature; weakness or feeling faint; headache, confusion or irrational behavior; nausea or vomiting.
Heat stroke: no sweating (hot, dry skin), high body temperature, confusion, or convulsions. Get immediate medical help.

Precautions when working in hot, humid conditions

Supervisors must receive training in the prevention of heat related illnesses prior to supervising employees working in heat. Supervisors should be trained in the employer's heat illness procedures to prevent heat illness and procedures to follow when a employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

Supervisors must ensure personal factors that contribute to heat related illness are taken into consideration before assigning a task where there is the possibility of a heat-related illness occurring. The most common personal factors that can contribute to heat related illness are age, weight/fitness, drug/alcohol use, prior heat-related illness, etc.

Procedures must be in place to control the effects of environmental factors that can contribute to heat related illness. The most common environmental factors are air temperature, humidity, radiant heat sources and air circulation. Physical factors that contribute to heat related illness should be taken into consideration before performing a task. The most common physical factors that can contribute to heat related illness are type of work, level of physical activity and duration, and clothing color, weight and breathability.

- Increase the frequency and length of rest breaks.
- Provide **cool drinking water** near workers and remind them to drink a cup every 1/2 hour.
- Caution workers about working in direct sunlight.
- Train workers and supervisors to recognize the signs and symptoms of heat stress. Start a "buddy system" because it's unlikely people will notice their own symptoms.
- Tell workers to wear light summer clothing to allow air to move freely and sweat to evaporate. They should always wear shirts to protect themselves from direct sunlight.

Employees suffering from heat illness or believing a preventative recovery period is needed, shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling. Such access to shade shall be permitted at all times.

Cold Stress

When you're cold, blood vessels in your skin, arms, and legs constrict, decreasing the blood flow to your extremities. This helps your critical organs stay warm, but your extremities are at risk for frostbite.

Frostbite means that your flesh freezes. Blood vessels are damaged and the reduced blood flow can

lead to gangrene. The first sign of frostbite is skin that looks waxy and feels numb. Once tissues become hard, it is a severe medical emergency.

Wind chill accelerates heat loss—sometimes to a dramatic extent. For example, when the air temperature is –30°C,

- with no wind, there is little danger of skin freezing;
- with 16 km/h wind (a flag will be fully extended), your skin can freeze in about a minute; and
- with 32 km/h wind (capable of blowing snow), your skin can freeze in 30 seconds.

When your core temperature drops, you're at risk for hypothermia. Early signs of hypothermia are shivering, blue lips and fingers, and poor coordination. Soon your breathing and heart rate slow down, and you become disoriented and confused. Hypothermia requires medical help.

Precautions to prevent cold stress

- Wear several layers of clothing rather than one thick layer.
- Wear gloves if the temperature is below 16°C for sedentary work, below 4°C for light
- work, and below –7°C for moderate work.
- Take warm, high-calorie drinks and food.
- If your clothing gets wet at 2°C or less, change into dry clothes immediately to prevent hypothermia.
- If you feel hot, open your jacket but keep your hat and gloves on.
- Give workers warm-up and rest breaks in a heated shelter. Ensure work is not conducted only within allowable exposure limits, as per provincial OHS Regulations.

Purpose

The purpose of this chapter is to address the Fit for Duty policy. This will be applicable to MG Newell personnel, and/or subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

Overview

M.G. Newell is committed to providing a safe working environment and to protect the health and safety of employees, staff, visitors and **M.G. Newell** property. This policy provides a mechanism for identifying and intervening when individuals who could pose a threat to the safety of others and property. Required drug and alcohol screening of employees in designated positions is addressed in **M.G. Newell** company policy. Post offer / pre-hire screening of job candidates for positions related to **M.G. Newell** services must comply with all **M.G. Newell** Health and Safety Codes.

Definitions

a. Fitness for duty: physical and mental health status that facilitates the performance of essential job duties in an effective manner and protects the health and safety of oneself, others and property.

b. Reliable report: self-disclosure or third-party opinion about an employee's possible lack of fitness for duty which is assessed as reasonable by the manager/supervisor considering such factors as the relationship of the reporter to the employee, the seriousness of the employee's condition, the possible motivation of the reporter and how the reporter learned the information.

c. Working hours: beginning with an employee's starting time and ending with the employee's quitting time as well as any time an employee is on-call. All work activities are included whether they occur on or outside **M.G. Newell** properties.

d. Medical evaluation: An examination performed by a designated health professional, including but not limited to a health history, physical and/or psychological examination and any medically indicated diagnostic studies. The cost is paid by the employer.

e. Medical certification: a document from a medically appropriate, licensed provider attesting to an employee's fitness for duty following an extended medical absence. Allowable costs to obtain the certification are paid by Workers Compensation for work related absences, and by the employee and the employee's health insurance for absences which are not work-related.

Employee responsibilities

a. Reporting to work, fit for duty.

b. Notifying the manager/supervisor when not fit for duty.

c. Notifying the manager/supervisor when observing a co-worker who may not be fit for duty (in cases where the possibly impaired individual is the employee's manager, the employee should make the notification to the next higher-level manager or the Director of Human Resources/Payroll).

d. Cooperating with a manager/supervisor's directive, and/or, referral for a medical evaluation.

Manager/supervisor responsibilities

a. Observing the attendance, performance, and behavior of employees they supervise.

b. Interviewing an employee who appears to the manager/supervisor, (or third-party report) unfit for duty and referring an employee for a medical evaluation when appropriate.

c. Recording the reasons/observations, that triggered a fitness for duty medical evaluation referral.

d. Utilizing this policy in a fair and consistent manner, respecting the employee's privacy, and the confidentiality of medical information.

Procedures

a. Employee plans to return from work after an extended medical absence.

1. Manager/supervisor receives medical certification from employee prior to his/her return to work, with suggested accommodations, if applicable.
2. Manager/supervisor determines whether employee can perform essential functions of the job with or without accommodation, accepting suggested accommodations or developing alternative accommodations.
3. Manager/supervisor provides and employee utilizes accommodations

b. A triggering event occurs when a manager/supervisor observes or receives a reliable report of an employee's possible lack of fitness for duty. Observations may include, but are not limited to an employee's self-reports, manual dexterity, coordination, alertness, speech, vision acuity, concentration, response to criticism, interactions with co-workers and supervisors, suicidal or threatening statements, change in personal hygiene, presence of condition likely to lead to food borne disease transmission, memory and/or odor of alcohol or marijuana.

1. Manager/supervisor interviews employee, when possible.

2. Manager/supervisor assesses magnitude of safety risk. Managers/supervisors are encouraged to contact Human Resources/Payroll for assistance.

A. No risk: keep notes of event.

B. Minor risk: encourage employee to use Employee Assistance Program (see **M.G. Newell** company policy) or seek medical treatment; document event.

C. Significant risk:

I. Contact local Police if appropriate.

II. Place employee on paid leave of absence (sick leave or paid administrative leave, depending on situation).

III. Arrange for employee's safe transportation home if situation warrants.

IV. Refer employee to Employee Assistance Program or for medical evaluation.

V. Implement discipline, if appropriate.

D. Severe risk:

I. Contact local Police.

II. Place employee on paid leave of absence.

III. Arrange for employee's safe transportation home.

IV. Implement appropriate discipline.

Outcomes

a. Employees voluntarily seeking assistance for physical (including controlled substance, drug and alcohol abuse/addictions), mental, and/or emotional problems before their work performance or attendance is adversely affected will not have their employment status jeopardized for seeking assistance.

b. Employees cooperating in a medical evaluation and in compliance with recommendations for medical, psychological and/or chemical dependence treatment may be returned to the job provided appropriate discipline, if warranted, has taken place.

c. Employees posing a severe risk may be subject to discipline up to and including termination of employment.

Employee Signature _____

Date _____

Printed Name _____

Supervisor/Manager Signature _____

Date _____

Purpose

The purpose of this chapter is to address the Fatigue Management policy. This will be applicable to M.G. Newell personnel, and/or subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

Purpose

To ensure M.G. Newell employees recognize to effect of fatigue as related to safely being able to perform work and to establish guidelines for work hours and equipment to reduce fatigue in our business and at our client locations.

Scope

This program applies to all Company projects and operations.

Policy

The guiding principles of fatigue management shall be incorporated into the normal management functions of the business and include the following:

- Employees must be in a fit state to undertake work.
- Employees must be fit to complete work.
- Employees must take minimum periods of rest to safely perform their work.

These principles will be managed through:

- The appropriate planning of work tasks, including driving, vehicle and equipment maintenance, loading and unloading and other job-related duties and processes.
- Providing appropriate equipment to help reduce stress and fatigue.
- Regular medical checkups and monitoring of health issues as required by legislation.
- The provision of appropriate sleeping accommodations where required.
- Ongoing training and awareness of employee health and fatigue issues.

Key Responsibilities

1. **Managers**
   a. Management accepts responsibility for the implementation of this fatigue management policy.

2. **Supervisors**

a. Responsible for the implementation and maintenance of this program for their site and ensuring all assets are made available for compliance with the program.

2. Employees

a. Employees must present in a fit state free from alcohol and drugs.
b. Employees must not chronically use over the counter or prescription drugs to increase mental alertness.
c. Employees are prohibited from taking any substance known to increase fatigue in that employee, including fatigue that sets in after the effects of the drug wear off.
d. Workers shall report tiredness/fatigue to supervision and supervisors shall take appropriate action to assist the worker.
e. Employees must report fatigue/tiredness and lack of mental acuity to supervision. Supervision must take appropriate actions to prevent loss.
f. Employees need to be rested prior to starting work.
g. Employees need to monitor their own performance and take regular periods of rest to avoid continuing work when tired.

Work Hour Limitations

M.G. Newell has set the following work hour limitations and will control job rotation schedules to control fatigue, allow for sufficient sleep and to increase mental fitness.

1. Every Employee shall have necessary work breaks to avoid fatigue. These scheduled breaks will apply to both driving and on-site hours. The following shall be a minimum:
   - 15 Minutes each 2.5 hours
   - 30 Minutes after 5 Hours
   - 30 Minutes after 10 Hours

2. No Workers shall work more than:

   - 12 hours per day
   - 24 Days Continuous

3. Unfamiliar or irregular work should be avoided.

Equipment and Evaluation

1. M.G. Newell will provide equipment such as anti-fatigue mats for standing, lift assist devices for repetitive lifting and other ergonomic devices as deemed appropriate, chairs for workers to sit periodically and will provide periodic rest breaks for personnel.
2. M.G. Newell will also periodically analyze and evaluate work tasks to control fatigue.

Training

1. M.G. Newell is committed to ensuring that all employees are competent to perform their tasks including:
2. Fatigue management and health issues.

3. M.G. Newell will provide initial and annual training on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and reporting of fatigue to supervision.
4. A record of individual fatigues training and competency will be maintained.

Purpose

The purpose of this chapter is to address the noise awareness/hearing conservation. This will be applicable to M.G. Newell personnel, and/or subcontractors.

Scope

Applies to all M.G. Newell projects and operations, as well as all M.G. Newell associates and authorized subcontractors to M.G. Newell.

The company has established a Hearing Conservation Program to protect worker(s) from the hazards of noise on the job. Provincial OHS Act and Regulations require that each employer implement a hearing conservation program when workers are exposed to noise levels exceeding 85 dB. It is not hard to exceed this level of noise on many of the job sites. Typically, noise levels exceeding 85 dB are experienced when working with any type of pneumatic chipper or hammer, metal saw, grinders and heavy machinery. See attachment I for list of some common noise levels.

Hearing protectors shall be available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater at no cost to the employees. Hearing protectors shall be replaced as necessary.

Responsibility

The Manager of Operations is responsible for the developing a written Hearing Conservation Procedure and overseeing the training of all employees in the company. The Manager of Operations is also responsible for the monitoring and administering this procedure.

Introduction

The OSHA Standard on Occupational Noise Exposure, 29 CFR 1910.95, established the permissible limit of noise as 85 dB(A) (decibels), expressed as an eight-hour (8-hours), time-weighted average, (TWA). This standard allows short-term unprotected noise exposure up to a maximum of 115dB (A), peak sound.

The noise standard requires the identification by personnel monitoring of employees who may be exposed above the 85 db (A), 8-hour, TWA. Hearing protection is also required for specific activities or using certain types of equipment.

Procedures

The company has taken a conservative approach to noise hazards by establishing this program. The following elements establish the program:

- An Audiometric Testing Program
- An Employee Education and Training Program
- Monitoring and Analysis of Workplace Noise Levels
- Providing Suitable Engineering Controls
- Providing Hearing Protectors
- Maintain required Records

Audiometric Testing Program

Each new employee whose work exposes them to “excess noise levels” as defined by the provincial OHS Regulation, will receive an Audiometric test as part of a pre-screening physical examination to establish a baseline audiogram against which subsequent audiograms can be compared.

Annually, all employees who are exposed to noise levels exceeding the 85 dB standard will be given a follow-up Audiometric examination to monitor for any significant changes in their hearing ability. Employees will be formally notified if there is any change in their hearing as the result of the testing. The Standard has defined this shift as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 200, 3000 and 4000 hz in either ear. In determining whether a standard threshold shift has occurred, allowance may be made for the contribution of aging (presbycusis) to the change in hearing level by correcting the annual audiogram according to the procedure described in Appendix F: “Calculation and Application of Age Correction to Audiograms.” When audiometric testing is required, each affected employee must not be exposed to any workplace noise for at least 14 hours prior to his/her test. This requirement may be met by wearing hearing protectors which will reduce the employee’s exposure to a sound level of 80 db (A) or below.

Audiometric tests shall be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used. A technician who operates microprocessor audiometer does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

An audiologist, otolaryngologist or physician will review problem audiograms and shall determine whether there is a need for further evaluation. The company will provide tot eh person performing this evaluation the following information:

a. A copy of the 29 CFR 1910.95 Hearing Conservation.
b. The baseline audiogram and most recent audiogram of the employee to be evaluated.
c. Measurement of background sound pressure in the audiometric test room as required in 29 CFR 1910.95 Appendix D.
d. Records of audiometric calibrations as required by 20 CFR 1910.95 Appendix E.

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift as defined by OSHA, the employee will be informed of this fact, in writing, by the company within 21 days of determination.

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, the company will ensure that the following steps are taken when a standard threshold shift occurs:

a. An employee not using hearing protectors will be fitted with hearing protectors, trained their use and care, and required to use them; and
b. An employee already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.

c. Refer the employee for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the company suspect that a medical pathology of the ear is caused or aggravated by the wearing of haring protectors.

d. Inform the employee of the need for an otological examination if a medical pathology of the ear which is unrelated to the use of hearing protector is suspected.

If subsequent audiometric testing of an employee whose exposure to noise is less than an 8-hour TWA average of 90 decibels indicates that a standard threshold shift is not persistent the company:

a. Will inform the employee of the new audiometric interpretations: and

b. May stop the required use of hearing protectors for that employee.

Employee Education and Training

The company employees must be trained on the use of personal hearing protection equipment. Also each employee must know how to clean and maintain the hearing protection equipment. Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided by the employer.

- The training will cover the following:
- Training will be for all employees who are exposed to noise at or above the 8-hour TWA of 85 dB.
- The training will be repeated annually for each employee included in the hearing conservation program.
- The effects of noise on hearing
- The purpose of hearing protectors, the advantages, disadvantages, and the attenuation of various types and instruction on selection, fitting, use and care
- The purpose of audiometric testing, and an explanation of the test procedures.
- Access to information and training materials.

Monitoring and Analysis of Workplace Noise Levels

The companies will periodically or as necessary, conduct noise level surveys of the workplace. The results of these surveys will be made available to employees.

Any job area or company location found to be in excess of the allowable designated noise levels that cannot be brought into compliance with the noise standard will be designated as an area where hearing protectors are to be worn. When signs are posted employees must wear hearing protection. The signs may read as follows:

NOTICE

EAR PROTECTION

REQUIRED

IN THIS AREA

REMEMBER: A client may determine if a unit or work area is classified as a high noise area. After the determination is made, company employees will be instructed to wear the appropriate hearing protection.

Provide Suitable Engineering Controls

Where appropriate, the company will provide engineering controls to reduce noise exposure. Due to the complexity of most job sites, it is difficult if possible to institute effective engineering controls for most noise exposures. Should this be the case, then employees will be required to wear suitable hearing protection.

Provide Hearing Protectors Where Required

The company will provide the required employees with hearing protectors if his/her 8 hour TWA is above the 85dB (A). The company will also make hearing protectors available to all employees exposed to a TWA above 85dB (A) at no cost to the employee. Any employee who may have a significant threshold shift of hearing level will be required to wear hearing protection if they are exposed to noise TWA of 85dB. The company will ensure all Hearing protectors meet the requirements in CSA Standard Z94.2-02, Hearing Protection Devices – Performance, Selection, Care and Use. The company will make a concerted effort to fine the right protector for each employee, one that offers the right attenuation, is accepted on the terms of comfort, and is used by the employee.

Responsibilities

A CLIENT WILL:

a. Determine all sources of noise at or above 85dD.

b. Determine if personnel have 8-hour TWA exposures at or above fifty-percent (50%) of the OSHA allowable.

c. Review noise exposures annually for all job classifications with TWA

d. Exposure at or above fifty-perent (50%)

e. Ensure that audiograms are made annually for personnel whose TWA exposures are at or above fifty percent (50%) of the OSHA allowable.

JOB SITE SUPERVISION WILL:

a. Will require hearing protection in all areas with noise levels at or above the 85dB(A) and for all task which generate such noise level (i.e., grinding, hammering). Ear plug shall be required in an area and/or on tasks with the sound levels exceeding 105dB.

b. To alert employees to possible hazardous noise exposures, Signs shall be posted in work areas in which the sound levels may exceed 85dB. These signs will be posted by the client.

c. Evaluate the need for engineering and/or administrative controls to reduce the noise levels below the 85 dB and, where feasible, develop a plan to reduce all personnel exposures to less than fifty-percent (50%) of the OSHA allowable.

d. Make hearing protection available and enforce its use by all employees with TWA exposures at or above the fifty-percent (50%) of the OSHA allowable and/or by those who must enter or work in areas where the noise level is 85dB or above.

REMEMBER - The client determines if a unit or work area is classified as a high noise area. After the determination is made, the company's employees will be instructed to wear the appropriate hearing protection.

Recordkeeping

All record-keeping for this program will be maintained in the office. Records will include:

a. Audiometric tests
b. Noise surveys
c. Employee training
d. Engineering controls implemented
e. Record of purchase of hearing protector

Work required Hearing Protectors

There are many jobs or types of work that generally produces noise level that intermittently or for short durations exceed the permissible TWA. It is the policy of the company to require all workers who are engaged in these jobs to wear hearing protectors. The attached list is some of those jobs.
See Attachment

Hearing Protectors

Employees may choose the type of hearing protection that best suits their particular assignment and personal preference for among those listed below. Each employee required to wear hearing protection is responsible for carrying hearing protection on his/her person. Hearing protection is furnished at no cost to employees.

EAR PLUGS – Most ear plugs, when worn properly, have a noise reduction rating (NRR) on the package. Most ear plugs have NRR of about 30.

EAR MUFFS – Adjustable muffs can be worn in three positions:

POSITION	NRR
1. Over the head	24 this depends on the NRR of the Ear Muff)
2. Under the chin	20
3. Behind the head	20

COMPUTING THE HEARING PROTECTION LEVEL

To compute the actual hearing protection level under the protector, subtract 7 dB(A) from the Noise Reduction Rating (NRR), then divide the number by 2, and subtract the remainder form the measured noise level dB (A).

For example: NRR of 29 -7 = 22 dB(A)
22 dB(A) ÷ 2 = 11 dB(A)

Noise level of 95 dB(A) – 11 = 84 dB(A)
Therefore, this device offers a protection level of 11 dB(A).

ATTACHMENT I

The following list represents some work activities and equipment which will require the use of hearing protection:

ACTIVITIES AND/OR EQUIPMENT TYPICALLY RESULTING IN HIGH NOISE LEVEL	**ESTIMATED AVERAGE NOISE LEVEL dB(A)**
1. Air Arc Gouging	115
2. Air compressor	95
3. Chain saw	107
4. Electric Disc Grinder	100
5. Forklift inside a trailer	98
6. Heavy equipment working	100
7. Impact tools	108
8. Pneumatic chipping hammer	110
9. Abrasive blasting	100
10. Welding machines	95

ATTACHMENT II

HEARING CONSERVATION PROGRAM

FOLLOW UP TRAINING RECORD

FROM: _____

Manager or Supervisor

The employee listed below recently was found to have a confirmed significant shift in the hearing threshold (as defined by OSHA). An investigation and additional training are required. When this form is completed and reviewed with the employee, please file in the office.

EMPLOYEE NAME:_____

Print or type First, MI, Last Name

_____ _____ _____

Social Security Number or Employee Number **Reported Date**

JOB CATEGORY _____

(Current Assignment)

The Potential for noise exposure and specific requirements for using hearing protection in their area should be reviewed with this employee within 2 weeks. If hearing protection requirements have not been established in this work area, it must be done as soon as possible.

The retraining for this employee should include:

* The temporary and permanent effects of noise on hearing
* Established hearing protection requirements
* Any questions the employee may have on the use of hearing protection

* The proper use of hearing protection

* Comments the employee has on potential off-the-job noise exposure

Comments on discussion held:_____

_____

I have discussed the above items with this employee:

_____ _____ _____

Manager or Supervisors Name (print) Signature Date of Discussion

Purpose

To provide an overall guiding plan for the M.G. Newell Safety Program.

Scope

Applies to all M. G. Newell Corporation employees. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M. G. Newell Corporation employees and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Application

The M.G. Newell Safety Plan is designed and implemented with the intent to provide our Associates, Sub-contractors, Guests, and Customers with training and awareness to allow them to work safely in their environment.

Our Safety Officer has been assigned the responsibility of insuring that the provisions of this plan have been complied with, and any questions concerning this program should be directed to the Safety Officer.

A. Administrator and Designated Trainers
The administrator of this program will be our Safety Officer. The Site Manager will oversee both the initial training and our ongoing training program. A roster of the employees trained under this program will be kept in our division offices. Training of new employees will be conducted by their supervisor.

B. Annual Refresher Training
Our company will annually refresh safety training, at a minimum.

C. This General Plan will act as a guiding overlay for all procedures that are part of the Safety Manual

Procedure

1. Housekeeping

    a. All crew members shall maintain a workspace that is clean and free of tripping, slipping, and other hazards that may result from trash and debris litter. Before starting any job, M.G. Newell crew members should consult with the Owner to estimate the amount of waste that may be generated and determine how waste is to be disposed. Recycle materials where possible. All on-site associates must be instructed on the proper handling, storage and disposal of wastes.

    b. Liquid spills shall be cleaned up immediately. Debris resulting from normal workday activities should be swept on a regular basis.

    c. Extension cords shall be used in the least intrusive manner possible to reduce tripping hazards. Cords should be rolled up and examined at the end of every day.

d. Packing waste shall be cleared daily and properly disposed.

e. Collect scrap metal for haul away and recycle.

2. Personal Protective Equipment (PPE)

a. All M.G. Newell crew members shall wear PPE as appropriate for the job and as directed by the Site Owner and/or the M.G. Newell Site leader.

b. Proper PPE shall be provided by M.G. Newell to all crew members on site. Some costs are born entirely by M.G. Newell. Some are shared with the crew members. See Associate Manuals for policy details.

c. Each crew member shall confirm that all PPE fits properly so that it will function as designed.

d. Respirators

i. Any employee that may be required to wear a respirator shall be trained in its use and properly fitted. A medical evaluation shall be done to allow the employee to wear a respirator. The employee may be required to not wear a beard that may interfere with the fit.

ii. The requirement to wear a respirator shall be determined by the Owner, M.G. Newell site leadership, or the employee may request a respirator.

iii. The respirator shall be chosen based upon the particular hazard.

iv. Each respirator shall be inspected prior to use and shall be cleaned before and after use. All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.

v. Note that M.G. Newell does not work in environments that are immediately dangerous to life and health.

3. Fire Extinguishers

a. Any employee that may be required to use a fire extinguisher will be trained in its use.

b. All welders, and anybody else that may be generating hot work, will be required to carry a fire extinguisher in their truck or toolbox.

c. Fire extinguisher training shall be updated annually.

d. All fire extinguishers are visually checked monthly with annual maintenance checks.

I. Methods Used to Inform Contractor/Subcontractor Employers
Subcontractors who may be exposed to hazardous chemicals will be informed both verbally and by means of an information sheet, as to hazards involved at a meeting before any work is accomplished. M. G. Newell Corporation will maintain a master list of chemicals on the site in the project office. We will also maintain a master file of SDS for those chemicals.

J. Hazards of Unlabeled Piping
If work must be done on unlabeled piping the contents of that piping must be identified and communicated to the workers that will be performing the work. Under no circumstances will unlabeled piping be opened by non-qualified or non-trained workers.

TRAINING OUTLINE

Introduction

The concept of the Hazard Communication Program was born in 1974 when the Standards Advisory Committee was formed to develop guidelines to implement Section 6 (B) 7 of the Occupational Safety and Health Act. This rule became law in 1984 and became known as 29 CFR Section 1910.1200. This law was designed to provide employees with the training necessary to safely deal with hazardous chemicals in the workplace. Its original intent was to provide information to employees in SIC Codes 20-39 which are manufacturing industries which use large quantities of hazardous materials. The scope has since been expanded to include all companies.

I. Basic Elements of the Right to Know Program

A. The Program is directed at two general groups: chemical manufacturers and chemical users.

B. There are five basic categories of the federal law. They are:

1. Evaluate chemical hazards.
2. Affix warning labels.
3. Provide Safety Data Sheets
4. Conduct chemical handling training.
5. Develop a written program.

C. A detailed explanation of each of these requirements is as follows:

1. Evaluate chemical hazards.

Each employer is required to inventory all of the materials used by his employees and determine if they are hazardous materials and should fall under this program. Any chemicals listed by the following sources are directly applicable to the Hazard Communication Standard.

a. Occupational Safety and Health Administration
b. American Conference of Governmental Industrial Hygienists (ACGIH)
c. National Toxicology Program
d. International Agency for Research on Cancer

The materials covered by this program are any materials that constitute a physical, toxicological or carcinogenic hazard to the worker.

2. Affix warning labels.

Manufacturers of hazardous materials are required to label all shipping containers holding their products. These labels must be on the box holding individual containers and on the individual containers. The labels may show the chemical name or its common name designation, and the label must contain a warning describing the primary health and physical hazards of the chemical. As an end user who does not manufacture or re-package hazardous chemicals, our responsibilities are limited to insuring that proper warning labels are on all hazardous chemical containers when they arrive at our office. Shipments of hazardous chemicals that arrive without proper warning labels will not be accepted.

3. Provide Safety Data Sheets (SDS).

SDS's must be obtained on all hazardous materials falling under the program. These sheets must be kept in a file that is accessible by all employees. These sheets contain the information that is necessary to determine the hazards involved with working with these chemicals. In addition, these sheets outline the protective measures that must be taken to prevent exposure to the chemicals and first aid procedures that should be implemented if an employee becomes exposed. The location of these sheets will be outlined in the written program.

Manufacturers of these materials are required to provide the consumer with Safety Data Sheets. If these sheets are not provided with the first shipment, they can be requested from the manufacturer.

4. Conduct chemical handling training. Employee training sessions must highlight the following five areas:
   a. Review the purpose of the Hazard Communication Standard.
   b. Describe the Safety Data Sheet's use and cataloging system.
   c. Review the hazards of the chemicals used by employees.
   d. Describe the safety measures for controlling the hazard.
   e. Summarize the particular hazardous materials used by the employer.

Training is required for all employees who are exposed to hazardous chemicals in the workplace. The Right to Know Law is a performance-oriented standard, meaning that the effectiveness of the program will be evaluated by how well the employees have been informed about the hazardous work environment.

II. Review of Hazardous Materials

The Safety Data Sheets of all the hazardous materials used in this company will be reviewed one by one with the important points being explained to the employees. The most important points on the SDS are the following items:

1. The nature of the hazard that the chemical presents, i.e. flammable, carcinogenic, reactive, etc.
2. Method of entry into the body, i.e. inhalation, absorption, or ingestion.
3. Protective measures needed to prevent overexposure.
4. First aid to be implemented if overexposure occurs.

Process Hazard-Anhydrous Ammonia Awareness Program

Introduction

M.G. Newell Corporation may perform work in customer facilities and/or on a customer's property that could contain Anhydrous Ammonia greater than 10,000 lbs. As a result, the following "Ammonia Awareness Program" has been developed to inform our associates and subcontractors of the health and fire hazards related to their work on PSM covered processes.

Program Elements

M.G. Newell will train each associate and insure all subcontractors have been trained on (a) Health and Fire Hazards; (b) Safe Work Practices; (c) Emergence Actions. We will also verify that each associate and subcontractor assigned to a PSM covered area understands the training via a review/test, and document such.

PSM Covered Areas

Any area in the facility with equipment containing ammonia for example, machine rooms (compressors), roof (condensers and piping), ceilings (ammonia piping), and/or outside areas (ammonia receiving manifolds).

Process Hazard Awareness

NFPA Ratings for Ammonia include (a) Flameability-1; (b) Health Hazards-3; (c) Reactivity-0. The primary hazard is its toxicity as it causes severe irritation of the respiratory tract. Ammonia has no Flash Point. Flammability limits are 16% to 25% ammonia vapor to air. Please reference the customer's SDS after a brief overview of the hazardous nature. Overview should include Emergency Actions, General Fire Prevention, Sources of Ignition, Toxicity of Ammonia, Reactivity of Ammonia and Access Control.

Characteristics of Anhydrous Ammonia are colorless and has a suffocating, pungent odor. It can cause harm if inhaled and/or if it comes into contact with the eyes or skin, is toxic as it causes severe irritation of the respiratory tract if inhaled. If one comes in contact with Anhydrous Ammonia, potential health effects are severe burning of the eyes, temporary blindness, coughing, chest pain, etc.

M. G. Newell associates and all subcontractors will use impervious clothing, gloves and/or face shields if there is a possibility of skin contact with liquid ammonia or vessels containing liquid Anhydrous Ammonia.

PURPOSE

This safety guideline is intended to provide suitable information to all workers regarding the potential effects of lead and where lead may be found so that adequate measures can be taken to limit exposure through controls in the workplace.

GENERAL

The guideline is intended to protect The Company workers from the immediate toxic effects of lead and from the serious toxic effects that may not become apparent until years of exposure have passed.

Characteristics & Where It Can Be Found

To understand why lead is so hazardous, it is important to know what it is, the hazardous effects on people, and which materials do or may contain lead. Once this is understood, workers will gain respect for the safety guidelines set forth in this policy.

What Is It?

Pure lead (Pb) is a heavy metal and is a basic chemical element. It can combine with various other substances to form numerous lead compounds.

Lead can be found in:

- Old glossy paints used on walls and pipe.
- Building and roof metal support frames.

Report to The Company Project Manager anytime you suspect lead-containing materials that may not have been disclosed:

- Cracked or peeling paint,
- Visible paint dust, grindings, or shavings.

Health Effects

<u>Ways in which lead enters your body.</u>

Lead can be absorbed into your body by inhalation (breathing) and ingestion (eating). When lead is scattered in the air it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed.

Hazards encountered with lead occur when:

- Inhaling lead as a dust, fume, or mist.
- Ingesting lead through food, cigarettes, and chewing tobacco when handled with contaminated hands.

Lead (except for certain organic lead compounds not covered by the standard, such as tetraethyl lead) is not absorbed through your skin. When lead is scattered in the air as a dust, fume or mist it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed. If you handle food, cigarettes, chewing tobacco, or make-up, which have lead on them or handle them with hands contaminated with lead, this will contribute to ingestion.

A significant portion of the lead that you inhale or ingest gets into your blood stream. Once in your blood system, lead is circulated throughout your body and stored in various organs and body tissues. Some of this lead is quickly filtered out of your body and excreted, but some remains in the blood and other tissues. As exposure to lead continues, the amount stored in your body will increase if you are absorbing more lead than your body is excreting. Even though you may not be aware of any immediate symptoms of disease, this lead stored in your tissues can be slowly causing irreversible damage, first to individual cells, then to your organs and whole-body systems.

Effects of overexposure to lead

Short-term (acute) overexposure

Lead is a potent, systemic poison that serves no known useful function once absorbed by your body. Taken in large enough doses, lead can kill you in a matter of days. A condition affecting the brain called acute encephalopathy may arise which develops quickly to seizures, coma, and death from cardiorespiratory arrest. A short-term dose of lead can lead to acute encephalopathy. Short-term occupational exposures of this magnitude are highly unusual, but not impossible. Similar forms of encephalopathy may, however, arise from extended, chronic exposure to lower doses of lead. There is no sharp dividing line between rapidly developing acute effects of lead and chronic effects, which take longer to acquire. Lead adversely affects numerous body systems and causes forms of health impairment and disease which arise after periods of exposure as short as days or as long as several years.

Long-term (chronic) overexposure.

Chronic overexposure to lead may result in severe damage to your blood-forming, nervous, urinary, and reproductive systems. Some common symptoms of chronic overexposure include loss of appetite, metallic taste in the mouth, anxiety, constipation, nausea, pallor, excessive tiredness, weakness, insomnia, headache, nervous irritability, muscle and joint pain or soreness, fine tremors, numbness, dizziness, hyperactivity, and colic. In lead colic there may be severe abdominal pain.

Damage to the central nervous system in general and the brain (encephalopathy) is one of the most severe forms of lead poisoning. The most severe, often fatal, form of encephalopathy may be preceded by vomiting, a feeling of dullness progressing to drowsiness and stupor, poor memory, restlessness, irritability, tremor, and convulsions. It may arise suddenly with the onset of seizures, followed by coma, and death. There is a tendency for muscular weakness to develop at the same time. This weakness may progress to paralysis often observed as a characteristic "wrist drop" or "foot drop" and is a manifestation of a disease to the nervous system called peripheral neuropathy.

Chronic overexposure to lead also results in kidney disease with few, if any, symptoms appearing until extensive and most likely permanent kidney damage has occurred. Routine laboratory tests reveal the presence of this kidney disease only after about two-thirds of kidney function is lost. When overt symptoms of urinary dysfunction arise, it is often too late to correct or prevent worsening conditions, and progression to kidney dialysis or death is possible.

Chronic overexposure to lead impairs the reproductive systems of both men and women. Overexposure to lead may result in decreased sex drive, impotence, and sterility in men. Lead can alter the structure of sperm cells raising the risk of birth defects. There is evidence of miscarriage and stillbirth in women whose husbands were exposed to lead or who were exposed to lead themselves. Lead exposure also may result in decreased fertility

and abnormal menstrual cycles in women. The course of pregnancy may be adversely affected by exposure to lead since lead crosses the placental barrier and poses risks to developing fetuses. Children born of parents either one of whom were exposed to excess lead levels are more likely to have birth defects, mental retardation, or behavioral disorders or to die during the first year of childhood.

Overexposure to lead also disrupts the blood-forming system resulting in decreased hemoglobin (the substance in the blood that carries oxygen to the cells) and ultimately anemia. Anemia is characterized by weakness, pallor, and fatigue because of decreased oxygen-carrying capacity in the blood.

PROCEDURES

Permissible Exposure Limit (PEL)

The current OSHA lead standard is 50 µg/m^3 as an 8-hour Time Weighted Average (TWA). The standard as it applies to construction is unique in that it groups tasks ***presumed*** to create worker exposures above the PEL of 50 µg/m^3 as an 8-hour TWA, as follows:

LEAD-RELATED CONSTRUCTION TASKS AND THEIR 8-HOUR TWA EXPOSURE LEVELS

> 50 to 500 µg/m^3	**> 500 µg/m^3 to 2,500 µg/m^3**	**> 2,500 µg/m^3**
Manual demolition	Using lead-containing mortar	Abrasive blasting
Dry manual scraping	Lead burning	Welding
Dry manual sanding	Rivet busting	Torch cutting
Heat gun use	Power tool cleaning without dust detection systems	Torch burning
Power tool cleaning with dust collection systems	Cleanup of dry expendable abrasive blasting jobs	
Spray painting with lead paint	Abrasive blasting enclosure movement and removal	

Action Level

The standard also establishes an action level of 30 micrograms per cubic meter of air (30 µg/m^3), time-weighted average, based on an 8-hour workday. The action level initiates several requirements of the standard, such as exposure monitoring, medical surveillance, and training and education.

Evaluation Process

The Contracting Company's Project Manager will provide workers with results of any evaluation processes and a listing of lead containing material. The Contracting Company will provide all precautions and render the area safe for workers before work begins.

Safety Measures

Workers are not permitted to work in areas where there may be a potential for Lead exposure. If it is necessary to perform any work where the exposure to Lead is about the acceptable limits, then must implement a comprehensive mandated safety policy and procedure that includes special elements of exposure monitoring, formal medical program, special personal protective equipment, and much more.

Below are listed possible work controls and practices:

1. WELDING, BURNING, AND TORCH CUTTING.

   Welding and cutting activities that potentially involve exposure to lead can occur as part of a number of construction projects such as highway/railroad bridge rehabilitation (including elevated mass-transit lines), demolition, and indoor and outdoor industrial facility maintenance and renovation. Lead exposures are generated when a piece of lead-based painted steel is heated to its melting point either by an oxyacetylene torch or an arc welder. In this situation, lead becomes airborne as a volatilized component of the coating. The amount of time a worker may spend welding or cutting can vary from only a few minutes up to a full shift. In addition, the coating being worked on may consist of several layers of lead-based paint, each of which could contain as much as 50% lead. Taken together, these factors suggest that a worker's exposure to airborne lead during welding or cutting activities can vary widely and may be exceedingly high. Lead burning, a process by which virgin or alloyed lead is melted with a torch or otherwise fused to another lead object, is typically performed in maintenance operations on electrostatic precipitators or during the installation of lead shot, bricks, or sheets in the walls or floors of health-care x-ray units or industrial sites. Lead health hazards in this operation, as in welding and torch cutting, are from lead that is superheated and released into the worker's breathing zone in the form of a fume.

   - Engineering Controls. The engineering controls that can be used, depending on feasibility, are:

     - Local exhaust ventilation (LEV) that has a flanged hood and is equipped with HEPA filtration may be appropriate where the use of LEV does not create safety hazards. Use of a flexible duct system requires that the welder be instructed to keep the duct close to the emission source and to ensure the duct is not twisted or bent
     - A fume-extractor gun that removes fumes from the point of generation is an alternative to an exhaust hood for gas-shielded arc-welding processes. Such extraction systems can reduce breathing zone concentrations by 70% or more.

These systems require that the gun and shielding gas flow rates be carefully balanced to maintain weld quality and still provide good exhaust flow
- A longer cutting torch can be used in some situations to increase the distance from the lead source to the worker's breathing zone
- Hydraulic shears can sometimes be used to mechanically cut steel that is coated with lead-based paint. The use of this method is limited by the ability of the shears to reach the cutting area
- Whenever possible, pneumatic air tools should be used to remove rivets in lieu of burning and torch cutting

- Work Practice Controls. The following work practice controls will help to reduce worker exposures to lead during welding, burning, and torch cutting:

  - Strip back all lead-based paint for a distance of at least 4 inches in all directions from the area of heat application. Chemical stripping, vacuum-shrouded hand tools, vacuum blasting, or other suitable method may be used. However, in enclosed spaces, strip back or protect the workers with air-line respirators
  - Ensure that workers avoid the smoke plume by standing to the side or upwind of the cutting torch whenever the configuration of the job permit
  - Prohibit burning to remove lead-based paint. Paint should be removed using other methods, such as chemical stripping, power tools (e.g., needle guns) with vacuum attachments, etc.

2. MANUAL SCRAPING AND SANDING OF LEAD-BASED PAINTS

Hand scraping of lead-based paints involves the use of a hand-held scraping tool to remove paint from coated surfaces. The health hazards in this activity are caused by the lead dust and paint chips produced in the scraping process. Hand sanding can also produce excessive dust. These activities are typically performed during residential and commercial/institutional lead abatement projects.

- Engineering and Work Practice Controls. Controls which employers can implement to protect workers performing scraping and sanding of lead-based paints are:

  - Use of wet-sanding and wet-scraping methods in conjunction with HEPA vacuuming or HEPA mechanical ventilation. Wet methods include misting of peeling paint with water before scraping, and sanding and misting of debris prior to sweeping or vacuuming
  - Use of shrouded power tools with HEPA vacuum attachments. The shroud must be kept flush with the surface
  - Use of techniques with known low exposure potential, such as encapsulation and removal or replacement instead of hand scraping and hand sanding

Washing of contacted areas

Employees' hands and faces should be washed if lead containing materials are contacted.

Regulated Areas

The Company will ensure a work plan is designed and implemented that will:

- Eliminate lead dust or fumes from exposing both work personnel and building occupants
- Ensure that unauthorized persons cannot access the area
- Use of signage - warning signs shall be provided and displayed at each regulated area and is posted at all approaches to regulated areas

Training

All The Company workers will be provided awareness training in this program to be familiar with the potential hazards and proper safe work procedures to follow if exposed to this health hazard. Training and information will be provided for all workers exposed to lead at or above the action level, or who may suffer skin or eye irritation from lead. The training will inform exposed workers of:

- Specific hazards associated with their work environment
- Protective measures which can be taken
- Danger of lead to their bodies (including their reproductive systems)
- Their rights under the standard