

## **PART I HOW TO EVALUATE SAFETY PROGRAMS**

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### **1(a) Introduction**

This Part of the Standards provides a roadmap for both Employers and Employees to creating a safe working environment. While the Standards in Parts 2 and 3 are organized and presented in a highly prescriptive format, this first Part provides workers within the industry an overall orientation to the philosophy, tools and corporate culture that the international community has adopted as a part of best management practices.

At the same time, this Part of the Standards explicitly defines the Rights of Workers to be kept informed of the hazards associated with their job assignments, to be provided with knowledge, engineering and management controls that eliminate unsafe working conditions, along with the actions that workers may take in order to ensure that they are never placed in situations that pose either immediate or long-term risks to their health and well-being.

Employees generally have little or no control over their working environment and must accept whatever environment employers offer. NERC is currently attempting to define and establish criteria for acceptable working environments, with the first step being the standards provided herein. Employers and their designated corporate representatives have both a moral and legal obligation to ensure that both workers and the public at large are kept insulated from the hazards associated with the industry sector.

### **1(b) Creating a Culture of Safety**

The design of a safe plant layout is beyond the responsibility of individual employees, but it nevertheless is essential for good power production practices and safe working conditions. Narrow aisles, blind intersections, insufficient overhead space and limited access for equipment repair and maintenance all are detrimental to a safe operating environment.

The National Safety Council in the United States has estimated that work-related accidents in the private sector in 1988 cost industry an average of \$15,100 per disabling injury. Based on this figure and the U.S. Bureau of Labor Statistics – which reported that in 1988 private U.S. Industry, employing 90 million workers, had 6.2 million job-related accidents and injuries was in excess of \$93 billion. Approximately, half of this total (\$46 billion) was for such visible costs as damaged equipment and materials, production delays, time losses of other workers not involved in the accidents and accident reporting.

Similar statistics have been reported in the United Kingdom (UK) and in the European Community. The statistics support the premise that it is the responsibility of every employer to take a strong, proactive stance to ensure their employees' safety.

Designing for safe work environments also means proper scheduling of work activities. It should not be the operator's or worker's responsibility to determine the proper routing of work in process. To make this type of decision a worker's responsibility unfairly shifts to what is truly management's responsibility directly to the worker. It is Management's responsibility to ensure that tight work standards are not only defined for each operating facility, but to ensure that procedures and policies are adopted and enforced. Establishing fair work standards through work measurement or some similar technique is, without question, a prerogative and a right of management. Establishing and enforcing tight work standards has resulted and will continue to

result in operators taking dangerous short cuts while completing tasks. These short cuts often result in industrial accidents and injuries. By the same token, Managers should use standards to ensure a fair day's pay for a fair day's work, but they should not use them as a whip to achieve maximum productivity through coercion.

Pressure placed on employees to meet tight production schedules results in the same type of problems as with tight work standards. Reasonable schedules based on reasonable capacity determinations and work standards eliminate the pressure and work-related stress placed on employees to overproduce because of unsafe short cuts.

Having a corporate culture that promotes and makes safety and environment a priority should be the goal of the industry. Creating a culture of safety first requires site-specific work practices and working environments to be carefully assessed with a focus on identifying high-risk areas, and then developing concrete plans for improved occupational and process safety performance. Management must focus on using employee insights to prevent costly and potentially deadly accidents before they occur, creating a safer workplace by taking into account both the environment in which employees work and the culture that drives their daily work experience.

As an Employer, it is your responsibility to provide a safe work environment for all employees, free from any hazards, and complying with legal and recommended best practices defined in the Standards. Health and safety in the workplace is about preventing work-related injury and disease, and designing an environment that promotes well-being for everyone at work.

Knowledge is the key ingredient in providing a safe work environment. If everyone knows the correct procedures, accidents and injuries will be kept to a minimum.

Both Employers and Employees should:

- Ensure that the way work is done is safe and does not affect employees' health.
- Ensure that tools, equipment and machinery are safe and are kept safe.
- Ensure that ways of storing, transporting or working with dangerous substances is safe and does not damage employees' health.

Employers must:

- Provide employees with the information, instruction and training they need to do their job safely and without damaging their health.
- Consult with employees about health and safety in the workplace.
- Monitor the work place regularly and keep a record of what is found during these checks.

Policies should be developed in consultation with employees, both with and without disability. It may be necessary to organize support persons or interpreters so that all employees may participate in the consultation.

Occupational Health and Safety (OH&S) procedures must be implemented wherever the work is being conducted, be that in an office, factory, construction site, substation, along transmission

line work or home. As an employer, it is your responsibility to ensure all employees have access to information about safety procedures, and for any reasonable adjustments to be made.

It is crucial that **New** employees be:

- Briefed of all new staff on OH&S policy at induction.
- Be provided training on all safety procedures, including evacuation and other emergency procedures.
- Provided access to information about safety procedures, in appropriate formats.

It is crucial the **Existing** employees:

- Have access to information in appropriate formats.
- Be provided with regular information updates and re-training sessions.
- Be provided access to information about safety procedures.
- Conduct relevant training on any new equipment or machinery.

The following are some anecdotal facts that can serve to raise a culture of safety among workers and management:

**Factors that make new workers more accident prone:**

- Lack of safety training;
- Don't ask questions;
- Unaware of hazards;
- Assume employer is responsible for safety;
- Don't understand rights/responsibilities;
- "It can't happen to me" attitude; and
- Fatigue.

**Major Causes of Injury:**

- Slips, trips and falls;
- Improper use of equipment;
- Faulty use of equipment;
- Improper lighting;
- Not turning off power while repairing equipment (lock out procedures);
- Entering unsafe confined spaces that do not normally accommodate people; and
- Improper use or storage of chemicals and other hazardous materials.

**The Employer's Responsibilities:**

- Provide a safe workplace.
- Ensure adequate training of workers.
- Keep written records of training: who, when and what type.
- Establish and maintain a comprehensive occupational safety program, including a written safety policy and an accident investigation program.
- Support supervisors, safety coordinators, and workers in their safety activities.

- Take action immediately when the worker or supervisor tells you about a potentially hazardous situation.
- Initiate an immediate investigation into accidents.
- Report serious accidents to the HSO (Health and Safety Officer) or to the Corporate Prevention Division.
- Provide adequate first Aid facilities and services.
- Provide personal protective equipment where required.
- Make available to all workers copies of Industrial Hygiene Policy.
- Post Health and Safety Regulations and all other regulations.

**The Supervisor's Responsibilities:**

- Instruct new workers on safe work procedures.
- Train workers for all tasks assigned to them and check their progress.
- Ensure that only authorized, adequately trained workers operate tools & equipment and use hazardous chemicals.
- Ensure that equipment and materials are properly handled, stored and maintained.
- Enforce safety regulations.
- Correct unsafe acts.
- Identify workers with problems such as drugs or alcohol that could affect their performance, and follow up with interviews and referrals where necessary.
- Formulate safety rules and inspect for hazards in your own area.

**Worker's Responsibilities:**

- You have an obligation to make your workplace safe.
- Know and follow safety and health regulations affecting your job.
- If you don't know how, ask for training before you begin work.
- Work safely, and encourage your co-workers to do the same.
- Correct or immediately report any unsafe conditions to your supervisor.
- Report any injury immediately to a First Aid attendant or supervisor.
- Take the initiative; make suggestions for improved safety conditions.

**Site Orientation:**

- All new employees should have a site orientation from their supervisor and be given a brief on safety procedures including: the layout of the section, a safety orientation, fire exit locations and procedures, emergency equipment and location of first aid facilities or services.
- Always be aware of your surroundings;
- Look up for falling objects;
- Be mindful of up/down traffic;
- Be cautious of structural inadequacies;
- Do not race up or down flights;
- In a noisy environment, use visual cues to look for potential hazards. Only use designated walkways, they are there for a reason; and
- Often some sites require workers to work in pairs or teams in case of an accident.

**Hazards:**

- Hazards in a work place can never be eliminated, but they can be controlled with proper equipment, training and supervision.
- Hazards are divided into two general categories:
  - Physical hazards – those that can cause immediate damage to the body. Examples: Moving equipment, machinery, confined space; heat, cold, chemicals, electrical, visibility.
  - Delayed Injury hazards – those due to repeated exposure or, a delayed reaction of the human body causing injury. Examples: Noise, ergonomics, repetitive strain injury, back injury, inhalation, radiation.

**Computer Workstations:**

- Problems with lighting can cause eyestrain and may also contribute to muscle soreness and fatigue.
- Avoid glare, position your computer workstation so that when you face the monitor, you are sitting beside or parallel to the window.
- If you face the window, light from the outside shines directly into your eyes and makes it difficult for you to focus on the screen.
- If you sit with your back to a window, you may have problems with reflections, or high light levels. In either situation, adjust the blinds to reduce the amount of light on your screen.
- Overhead lights can shine directly in your eyes or reflect images onto your computer screen, making it difficult to view your screen. To avoid this adjust the angle of your screen so that it's at right angles to the work surface.
- The top line of text on your screen should be at eye level. Most of the screen will be slightly below eye level.
- The distance between your eyes and the screen should be about arm's length.
- Your chair should provide good lumbar support.

**Lighting**

- Problems with lighting can cause eyestrain.
- Poor lighting can also contribute to muscle soreness and fatigue.

**Back Injuries**

- Approximately 1/3 of workers will suffer back problems during their working life. Back injuries are the most common work related injury.
- The low back is subject to greater mechanical stress than any other part of the body and, because of this, is commonly injured.
- A majority of low-back problems are caused by simple strains that can heal within six to eight weeks with appropriate treatment. Fear and misunderstanding are the two main factors that can delay recovery.
- For engineers and computer scientists, computer use can cause lower back pain and repetitive strain injuries over time.

Everyone in a work force should wisely take a careful look at their work environment and their work habits. Both workers and management need to note whether their workplace is really safe. Both need to consider whether the job requires working with any toxic substances; and if so, are people adequately protected? Both managers and workers need to ask themselves whether they are constantly under stress. Does your environment accept work schedules that breach legally established limits or hours? Answers to questions such as these might reveal much about how safe people are at work.

Creating a corporate culture of safety means being conscious of the dangers at work. Trying to maintain an unreasonable work schedule can be dangerous. Indeed, tired workers are less efficient and make more mistakes. Companies that foster excessive work and actively seek out and reward workaholics result into consequences that are potentially devastating. Poor work habits, which may include lack of tidiness and cleanliness, pose another hazard. Leaving tools thrown on the floor or live electric wires exposed often lead to accidents, even fatalities. The same can be said of ignoring safety precautions when using power tools and machinery. Another cause of injury and death is failing to clean up spilled fluids, especially toxic ones. Many injuries have occurred when workers have slipped on oily or wet floors. So it might be said that the first law of good work is to be clean and orderly.

Yet, many are tempted to ignore safety procedures. Work pressure may lead to perceptions that short cuts are necessary to meet demands. Therefore, some may reason regarding a safety regulation, 'It has never caused any problem when I ignored it.' One of the worst things that you can do at work is ignore safety procedures and get away with it! Why? because this fosters overconfidence and carelessness, leading to more accidents.

The explosion of the Chernobyl plant in Ukraine in 1986 is often described as "the world's worst nuclear accident." What went wrong? A report on the disaster speaks of a "catalogue of reckless operating procedures" and "the repeated flouting of safety precautions."

Both employer and employee can cooperate in foreseeing potential safety hazards. Yes, the wise one observes what could prove to be a dangerous situation and looks for ways to protect himself and others.

When employers do this, they benefit, and so do their employees. For example, a company that redesigned their office to avoid "sick building syndrome" found that before long, productivity was up and staff satisfaction levels had improved dramatically. It was also found that fewer people were out on sick leave. Such consideration for the health of others not only makes for a more pleasant atmosphere for employer and employee but, as seen in this case, can also make good sense economically.

The proper approach to creating the safety culture is to make sure every employee applies a common-sense approach to safety. This includes being diligent in following local safety regulations. Doing this can go a long way towards making the workplace safer.



## **1(c) Good Housekeeping**

### **1(c)(1) General Information**

Housekeeping can reduce and eventually eliminate accident causes. The National Safety Council in the United States reports that falls due to improper housekeeping result in between 200,000 and 300,000 disabling industrial accidents each year. Management must take the initiative to properly train employees in the essentials of good housekeeping and in the necessity of maintaining a hazard-free workplace.

Good housekeeping is one of the surest ways to identify a safe workplace. You can tell how workers' feel about safety just by looking at their housekeeping practices. Good housekeeping isn't the result of cleaning up once a week or even once a day. It's the result of keeping cleaned-up all the time. It's an essential factor in a good safety program, promoting safety, health, production, and morale.

Whose responsibility is housekeeping? It's everyone's. Clean work areas and aisles help eliminate tripping hazards. Respecting "wet floor" signs and immediately cleaning up spills prevents slipping injuries. Keeping storage areas uncluttered reduces the chances of disease and fire as well as slips, trips, and falls. Accumulated debris can cause fires, and clutter slows movement of personnel and equipment during fires.

Other housekeeping practices include keeping tools and equipment clean and in good shape or keeping hoses and cables or wires bundled when not in use. Broken glass should be picked up immediately with a broom and dustpan, never with bare hands. Be aware of open cabinet drawers, electric wires, sharp corners or protruding nails. Either correct the unsafe condition if you are able and it is safe to do so, or notify the person responsible for overall maintenance that something should be done.

How a workplace looks makes an impression on employees and visitors alike. A visitor's first impression of a business is important because that image affects the amount of business it does. Good housekeeping goes hand-in-hand with good public relations. It projects order, care, and pride.

Besides preventing accidents and injuries, good housekeeping saves space, time, and materials. When a workplace is clean, orderly, and free of obstruction; work can get done safely and properly. Workers feel better, think better, do better work, and increase the quantity and quality of their work.

### **1(c)(2) Establishing a Good Housekeeping Program**

Effective housekeeping can eliminate some workplace hazards and help get a job done safely and properly. Poor housekeeping can frequently contribute to accidents by hiding hazards that cause injuries. If the sight of paper, debris, used and spent parts, fuses, clutter and spills is accepted as normal (Figure 1), then other more serious health and safety hazards may be taken for granted.

Housekeeping is not just cleanliness. It includes keeping work areas neat and orderly; maintaining halls and floors free of slip and trip hazards; and removing of waste materials (e.g.,

paper, cardboard) and other fire hazards from work areas. It also requires paying attention to important details such as the layout of the whole workplace, aisle marking, the adequacy of storage facilities, and maintenance. Good housekeeping is also a basic part of accident and fire prevention.

Effective housekeeping is an ongoing operation: it is not a hit-and-miss cleanup done occasionally. Periodic "panic" cleanups are costly and ineffective in reducing accidents. Poor housekeeping can be a cause of accidents, such as:

- tripping over loose objects on floors, stairs and platforms;
- being hit by falling objects;
- slipping on greasy, wet or dirty surfaces;
- striking against projecting, poorly stacked items or misplaced material; and
- cutting, puncturing, or tearing the skin of hands or other parts of the body on projecting nails, wire or steel strapping.



**Figure 1. Example of poor housekeeping**

To avoid these hazards, a workplace must "maintain" order throughout a workday. Although this effort requires a great deal of management and planning, the benefits are many.

Effective housekeeping results in:

- reduced handling to ease the flow of materials;
- fewer tripping and slipping accidents in clutter-free and spill-free work areas;
- decreased fire hazards;
- lower worker exposures to hazardous substances;
- better control of tools and materials;
- more efficient equipment cleanup and maintenance;
- better hygienic conditions leading to improved health;
- more effective use of space;
- reduced property damage by improving preventive maintenance;
- less janitorial work; and
- improved morale.

A good housekeeping program plans and manages the orderly storage and movement of materials from point of entry to exit. It includes a material flow plan to ensure minimal handling. The plan also ensures that work areas are not used as storage areas by having workers move materials to and from work areas as needed. Part of the plan could include investing in extra bins and more frequent disposal.



**Figure 2. Ineffective storage planning**

The costs of this investment could be offset by the elimination of repeated handling of the same material and more effective use of the workers' time. Often, ineffective or insufficient storage planning results in materials being handled and stored in hazardous ways (Figure 2). Knowing the plant layout and the movement of materials throughout the workplace can help plan work procedures.

Worker training is an essential part of any good housekeeping program. Workers need to know how to work safely with the products they use. They also need to know how to

protect other workers such as by posting signs (e.g., "Wet - Slippery Floor") and reporting any unusual conditions.

Housekeeping order is "maintained" not "achieved." This means removing the inevitable messes that occur from time to time and not waiting until the end of the shift to reorganize and clean up. Integrating housekeeping into jobs can help ensure this is done. A good housekeeping program identifies and assigns responsibilities for the following:

- clean up during the shift;
- day-to-day cleanup;
- waste disposal;
- removal of unused materials; and
- inspection to ensure cleanup is complete.

Do not forget out-of-the-way places such as shelves, basements, sheds, and boiler rooms that would otherwise be overlooked. The orderly arrangement of operations, tools, equipment and supplies is an important part of a good housekeeping program.

The final addition to any housekeeping program is inspection. It is the only way to check for deficiencies in the program so that changes can be made. The documents on workplace inspection checklists provide a general guide and examples of checklists for inspecting offices and manufacturing facilities.

The following elements constitute the basis for establishing a Good Housekeeping Program.

### ***1(c)(2)(i) Dust and Dirt Removal***

In some jobs, enclosures and exhaust ventilation systems may fail to collect dust, dirt and chips adequately. Vacuum cleaners are suitable for removing light dust and dirt. Industrial models have special fittings for cleaning walls, ceilings, ledges, machinery, and other hard-to-reach places where dust and dirt may accumulate.

Dampening floors or using sweeping compounds before sweeping reduces the amount of airborne dust. The dust and grime that collect in places like shelves, piping, conduits, light fixtures, reflectors, windows, cupboards and lockers may require manual cleaning. Special-purpose vacuums are useful for removing hazardous substances. For example, vacuum cleaners fitted with HEPA (High Efficiency Particulate Air) filters may be used to capture fine particles of asbestos or fiberglass.

Compressed air should not be used for removing dust, dirt or chips from equipment or work surfaces. First, compressed air is extremely forceful. Depending on its pressure, compressed air can dislodge particles. These particles are a danger since they can enter a worker's eyes or abrade skin. The possible damage would depend on the size, weight, shape, composition, and speed of the particles. There have also been reports of hearing damage caused by the pressure of compressed air and by its sound.

Second, compressed air itself is also a serious hazard. On rare occasions, some of the compressed air can enter the blood stream through a break in the skin or through a body opening. An air bubble in the blood stream is known medically as an embolism, a dangerous medical condition in which a blood vessel is blocked, in this case, by an air bubble. An embolism of an artery can cause coma, paralysis or death depending upon its size, duration and location. While air embolisms are usually associated with incorrect diving procedures, they are possible with compressed air due to high pressures. While this seems improbable, the consequences of even a small quantity of air or other gas in the blood can quickly be fatal.

Horseplay has also been a cause of some serious workplace accidents caused by individuals not aware of the hazards of compressed air, or proper work procedures.

### ***1(c)(2)(ii) Employee Facilities***

Employee facilities need to be adequate, clean and well maintained. Lockers are necessary for storing employees' personal belongings. Washroom facilities require cleaning once or more each shift. They also need to have a good supply of soap, towels, plus disinfectants, if needed.

If workers are using hazardous materials, employee facilities should provide special precautions such as showers, washing facilities and changing rooms. Some facilities may require two locker rooms with showers between. Using such double locker rooms allows workers to shower off workplace contaminants and prevents them from contaminating their "street clothes" by keeping their work clothes separated from the clothing that they wear home.

Smoking, eating or drinking in the work area should be prohibited where toxic materials are handled. The eating area should be separate from the work area and should be cleaned properly each shift.

### ***1(c)(2)(iii) Surfaces***

**Floors:** Poor floor conditions are a leading cause of accidents so cleaning up spilled oil and other liquids at once is important. Allowing chips, shavings and dust to accumulate can also cause accidents. Trapping chips, shavings and dust before they reach the floor or cleaning them up regularly can prevent their accumulation. Areas that cannot be cleaned continuously, such as

entrance ways, should have anti-slip flooring. Keeping floors in good order also means replacing any worn, ripped, or damaged flooring that poses a tripping hazard.

**Walls:** Light-colored walls reflect light while dirty or dark-colored walls absorb light. Contrasting colors warn of physical hazards and mark obstructions such as pillars. Paint can highlight railings, guards and other safety equipment, but should never be used as a substitute for guarding. The program should outline the regulations and standards for colors.

#### ***1(c)(2)(iv) Light Fixtures***

Dirty light fixtures reduce essential light levels. Clean light fixtures can improve lighting efficiency significantly.

#### ***1(c)(2)(v) Aisles and Stairways***

Aisles should be wide enough to accommodate people and vehicles comfortably and safely. Aisle space allows for the movement of people, products and materials. Warning signs and mirrors can improve sight-lines in blind corners. Arranging aisles properly encourages people to use them so that they do not take shortcuts through hazardous areas.

Keeping aisles and stairways clear is important. They should not be used for temporary "overflow" or "bottleneck" storage. Stairways and aisles also require adequate lighting.

#### ***1(c)(2)(vi) Spill Control***

The best way to control spills is to stop them before they happen. Regularly cleaning and maintaining machines and equipment is one way. Another is to use drip pans and guards where possible spills might occur. When spills do occur, it is important to clean them up immediately. Absorbent materials are useful for wiping up greasy, oily or other liquid spills. Used absorbents must be disposed of properly and safely.

#### ***1(c)(2)(vii) Tools and Equipment***

Tool housekeeping is very important, whether in the tool room, on the rack, in the yard, or on the bench. Tools require suitable fixtures with marked locations to provide orderly arrangement, both in the tool room and near the work bench. Returning them promptly after use reduce the chances of being misplaced or lost. Workers should regularly inspect, clean and repair all tools and take any damaged or worn tools out of service.

#### ***1(c)(2)(viii) Maintenance***

The maintenance of buildings and equipment may be one of the most important elements of good housekeeping. Maintenance involves keeping buildings, equipment and machinery in safe, efficient working order and in good repair. This includes maintaining sanitary facilities and regularly painting and cleaning walls. Broken windows, damaged doors, defective plumbing and broken floor surfaces can make a workplace look neglected; these conditions can cause accidents and affect work practices. So, it is important to replace or fix broken or damaged items as quickly as possible. A good maintenance program provides for the inspection, maintenance, upkeep and repair of tools, equipment, machines and processes.

***1(c)(2)(ix) Waste Disposal***

The regular collection, grading and sorting of scrap contribute to good housekeeping practices. It also makes it possible to separate materials that can be recycled from those going to waste disposal facilities.

Allowing material to build up on the floor wastes time and energy since additional time is required for cleaning it up. Placing scrap containers near where the waste is produced encourages orderly waste disposal and makes collection easier. All waste receptacles should be clearly labeled (e.g., recyclable glass, plastic, scrap metal, etc.).

***1(c)(2)(x) Storage***

Good organization of stored materials is essential for overcoming material storage problems whether on a temporary or permanent basis. There will also be fewer strain injuries if the amount of handling is reduced, especially if less manual materials handling is required. The location of the stockpiles should not interfere with work but they should still be readily available when required. Stored materials should allow at least one meter (or about three feet) of clear space under sprinkler heads.

Stacking cartons and drums on a firm foundation and cross tying them, where necessary, reduce the chance of their movement. Stored materials should not obstruct aisles, stairs, exits, fire equipment, emergency eyewash fountains, emergency showers, or first aid stations. All storage areas should be clearly marked.

Flammable, combustible, toxic and other hazardous materials should be stored in approved containers in designated areas that are appropriate for the different hazards that they pose. Storage of materials should meet all requirements specified in the fire codes and the regulations of environmental and occupational health and safety agencies in your jurisdiction.

***1(d) New Employee Orientation***

For employers with a safety manager, the manager can conduct the classroom part of orientation/training, prepare all the training materials (handouts, forms, checklists, lesson plan, etc.), conduct the employee evaluation, and maintain all documentation. The facility supervisor(s) can conduct the on-the-job training and observation, and determine when the employee is ready for the evaluation.

For employers or departments without a safety manager, the company safety committee can share responsibilities for conducting the job hazard analyses and the training program. The safety committee can put together the orientation/training materials, conduct the "classroom" training, and keep records. The department where employees will work can conduct the hands-on training.

During the orientation period, introduce new workers to all the basic safety information that applies to their work areas, such as:

- General hazards in the work area;
- Specific hazards involved in each task the employee performs;
- Hazards associated with other areas of the facility;
- Company safety policies and work rules;
- Proper safety practices and procedures to prevent accidents;
- The location of emergency equipment such as fire extinguishers, eyewash stations, first-aid supplies, etc.;
- Smoking regulations and designated smoking areas;
- Emergency evacuation procedures and routes;
- Who to talk to about safety questions, problems, etc.;
- What to do if there is an accident or injury;
- How to report emergencies, accidents, and near misses;
- How to select, use, and care for personal protective equipment;
- Safe housekeeping rules;
- Facility security procedures and systems;
- How to use tools and equipment safely;
- Safe lifting techniques and materials-handling procedures; and
- Safe methods for handling, using, or storing hazardous materials and the location of material safety data sheets.

Orientation programs can be updated and refined by reviewing accident near-miss reports. Near-miss reports offered early warning signs of new or recurrent hazards in the workplace that must be corrected before someone gets hurt or equipment is damaged. An evaluation of illness and injury reports are also a catalyst for changes in safety orientation and training programs.

Orientation can involve several levels of new employee involvement, from awareness information to formal training programs. Awareness orientation/training informs employees about a potential hazard in the workplace and their role in responding to the hazard, even though they are not directly exposed to the hazard. For example, "affected" employees can be told about locks and tags for electrical systems without being trained how to implement the lockout/tagout program.

It is useful to rely on a checklist to ensure that appropriate safety orientation is provided to new workers. The following are two examples of a new employee safety orientation checklist. These checklists should be modified to fit the needs of the organization or site.

## NEW EMPLOYEE SAFETY ORIENTATION TRAINING CHECKLIST

(To be completed by employee & supervisor; return to Payroll)

Employee Name \_\_\_\_\_ Job Title \_\_\_\_\_

Supervisor's Name \_\_\_\_\_ Department \_\_\_\_\_

**ALL EMPLOYEES WILL BE TRAINED ON THE FOLLOWING TOPICS:**

**The Injury & Illness Prevention Program (IIPP)**

- Discussed "Report of Unsafe Condition or Hazard" Form
- Employee has received "Code of Safe Practices" and forwarded signed acknowledgement to Payroll.
- Informed of the duties and responsibilities of Safety Officers, Safety Committees, Management and Employees.
- Material Safety Data Sheets (MSDS) 800-451-8346
- Chemical Safety / Personal Protective Equipment (P.P.E.)
- Location of Safety Manual (Injury & Illness Prevention Plan)
- Reporting of Work-Related Injuries (3-step process)

**Ergonomics Program**

- Overview of RMIs (Repetitive Motion Injuries)
- Proper lifting
- Safe work practices
- Workstation evaluation

**Uniforms / Attire**

- Discuss appropriate attire
- Discuss appropriate footwear

**Fire Safety, Emergency & Disaster Preparedness**

- Designated Evacuation Assembly Points
- Emergency Action Plans
- Emergency escape routes
- List of emergency phone numbers
- Types of fires
- Types of fire extinguishers

**Other Required Training**

- Hazard Communication
- Bloodborne Pathogen
- Ladder
- Hand Cart / Dolly
- List: \_\_\_\_\_
- List: \_\_\_\_\_
- List: \_\_\_\_\_
- List: \_\_\_\_\_

**Locations**

- Location of fire alarm
- Location of Safety Postings
- Locations and use of fire extinguishers
- Location of Automatic External Defibrillator (A.E.D.)
- Location of natural gas shut-off

**Certifications** (if applicable)

- Fire Extinguisher
- CPR
- Automatic External Defibrillator (A.E.D.)
- First Aid

**Record of Safety Orientation Training**

Signature of Trainer \_\_\_\_\_ Date \_\_\_\_\_

Signature of Employee \_\_\_\_\_ Date \_\_\_\_\_

**Forward signed copy to Payroll to be placed in Employee's Personnel File**

12/06



**DEPARTMENTAL NEW EMPLOYEE SAFETY ORIENTATION**

Employee Name: \_\_\_\_\_

Job Title: \_\_\_\_\_ SSN: \_\_\_\_\_

Topics 1-4 are contained in the departmental Emergency Operations Plan. Reviewing this plan during the orientation will more than meet the requirements of these first few topics.

 **1. Reporting Emergencies**

Tell and show the new employee(s) the police, medical, and fire emergency reporting number(s) for their work area.

*General Campus**Police - Medical - 5566  
Fire*

*The emergency number should be posted on all telephones.*

<i>Your dept., div., unit, worksite, etc.</i>		
<i>Name</i>		
<i>Location</i>	<i>Emergency Service(s)</i>	<i>Phone #</i>

 **2. Emergency Evacuation**

Walk new employees through the appropriate emergency evacuation route for their work area. Also point out the secondary emergency evacuation route to be used if the primary route is blocked. Show them where to assemble after evacuation. Discuss special evacuation needs and plans with disabled employees. (Campus building evacuation floor plans are available from Campus Safety.)

 **3. Local Fire Alarm Signaling System**

Show new employees where fire alarm pull stations are and instruct them in their use. Let them know that activating the pull station sounds an alarm in the building to alert other occupants to evacuate. Describe what the alarm in your building sounds like (a bell, chimes, a slow whoop).

- Tell your new employees that they must leave the building immediately upon hearing the alarm, closing doors behind them.
- When employees discover a fire, they should first pull the nearest fire alarm pull station and then exit the alarmed area. If possible, employees should follow up with a telephone call from a safe location to provide more details.
- **On Campus:** The activation of a fire alarm pull station also sends a signal to Campus Safety and Saratoga Springs Fire Department showing the location of the emergency.

- 4. **Portable Fire Extinguishers**  
Show the employee(s) where portable fire extinguishers are located. Tell them to use a portable fire extinguisher only if:
  - they have been trained to use them,
  - the fire alarm has been sounded first,
  - the fire is small (wastebasket size), and
  - they have a clear evacuation route.

- 5. **Department Reporting Procedures**  
Tell your new employee(s) to immediately report accidents, incidents, near misses, motor vehicle accidents, and any unsafe conditions or acts to (*usually their supervisor*):

Name:	Phone:
Location:	Room:

- a. **Reporting Accidents and Incidents**  
Explain that after they immediately report on-the-job accidents, they have to fill out a College accident incident report form.

Explain the form and tell them where the forms are located. All accidents must be reported on this form regardless of the extent of personal injury.

Reporting all accidents and incidents helps the College and the employing department initiate effective safety programs and accident prevention measures.

- b. **Reporting Motor Vehicle Accidents**  
All automobile accidents in College-owned vehicles must also be reported to the Department of Campus Safety (X5566) immediately, whether or not there appears to be personal injury or property damage.
- c. **Reporting Unsafe Conditions and Acts**  
Along with immediately reporting unsafe conditions and acts to their supervisors or the person noted above, employees may report safety problems to Campus Safety.

Explain that employees should take responsibility for correcting unsafe conditions when feasible, e.g., wiping up small, nontoxic spills and removing tripping hazards.

- 6. **Workers' Compensation and Industrial Insurance**  
Tell employees that work-related injuries or illnesses resulting in medical expenses or time loss are covered by New York State's Workers' Compensation. To establish a Workers' Compensation claim, employees must fill out the appropriate paperwork. Contact Human Resources for additional information. Explain, also, that prompt reporting of accidents to you, the supervisor, will make the claims process easier and may allow you to find them modified work during their recovery.
- 7. **First Aid**  
Tell new employees where first aid kits are located. Explain what actions employees should take if they or others are injured. If safety showers or eye wash stations are located in your department, show new employees where they are and instruct them in their use.
- 8. **Hazard Communication (Chemical Safety)**  
(Worker Right-to-Know, HazCom)  
(Refer to the College HazCom Plan located in Facilities Services and Campus Safety)
  - a. **General** (all employees)

- Tell new employees where hazardous materials are used or stored in their work area.
- Explain the labeling system for these materials.
- Show employees where material safety data sheets (MSDS) are located or explain how they can obtain an MSDS.
- If new employees will be working with hazardous materials, tell them they will receive training in the safe handling of these materials or conduct the training at this time, if appropriate.

*Hazard Communication training is conducted by supervisors or a designated departmental trainer.*

- Inform new employees that hazardous materials emergencies, such as spills or releases too big for them to clean up, are to be reported to:

	Who	Phone
Small Spills		
Large Spills or releases		

*Report large spills or releases to Campus Safety at X5566.*

- Explain the hazardous materials waste disposal procedures that apply in your area.

b. **Specific Worksites**

**Office Staff**

For staff whose only chemical exposures are in an office environment.

- Discuss hazard information and protection measures for products they will work with.
- Explain an MSDS and tell employees where they are located or how to obtain them.

**Laboratory Staff**

The laboratory supervisor or staff must provide additional training, specific to the chemicals in the laboratory.

**Non-Laboratory Hazardous Chemicals**

Employees who work with chemicals in non-laboratory environments must receive detailed hazard communication training from their supervisor or designated departmental HazCom trainer. (Employees who fall into this category include maintenance, custodial/housekeeping, food service and printing and copy/duplicating employees.)

9. **Worksite Warning Signs and Labels**

Explain to all new employees the meaning of warning signs, tags, and labels used in their work area.

10. **Personal Protective Equipment (PPE)**

*Check the personal protective equipment needed for this job.*

Gloves	Hard Hats
Safety Glasses, Goggles, Face Shields	Hearing Protectors
Personal Protective Clothing	Fall Protection
Orange Safety Vest	Safety Shoes
Respirator	

Explain precisely the use, care, cleaning, and storage of any personal protective equipment the new employee will be required to use on the job. Stress the need for strict adherence to department, division, unit, and/or lab policy on the use of PPE.

11. **Employee Safety and Health Training**

Use the following list to indicate the safety and health training classes the new employee will be required to take for their job. Recommended classes could also be marked but priority must be given to arranging the required health and safety training classes.

12. **Safety and Health Committee(s) and/or Safety Meetings**

Tell new employees about the Organizational and University-wide Health and Safety Committees and about the departmental health and safety committee and safety meetings, if applicable. Tell them who their safety committee representatives are and how to contact them.

13. **Safety Bulletin Board**

Point out the departmental safety bulletin board and tell them what items can be found on the board.

- *Other safety notices, newsletters, safety and health committee minutes, etc. should be posted here also.*

14. **Departmental/Worksite Safety Practices and Rules**

Conduct an on-the-job review of the practices necessary to perform the initial job assignments in a safe manner. Employees should understand that supervisors will provide job safety instruction and inspection on a continuing basis. Review safety rules for your department (e.g., non-smoking areas, working alone, safe use of chemicals, biohazards, radioactive materials, etc).

15. **Tour Department/Facility Reviewing Worksite Hazards**

Encourage your employees to ask questions and to develop a sense of safety consciousness.

### **1(e) Worker Rights**

The following Worker Rights are essentially adopted from the U.S. Occupational Safety and Health Act of 1970.

You have the right to a safe workplace. NERC requires employers to provide a workplace that is free of serious recognized hazards and in compliance with NERC standards.

Specifically, you have the right to:

1. Get training from your employer as required by NERC standards.
  - a. Get training from your employer on chemicals you are exposed to during your work and information on how to protect yourself from harm. Employers must establish a comprehensive, written hazard communication program (chemical hazard communication). Your employer must label chemical containers, make material safety data sheets with detailed hazard information available to employees, and train you about the health effects of the chemicals you work with and what the employer is doing and what you can do to protect yourself from these hazards.
  - b. The program must list the hazardous chemicals in each work area, how the employer will inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and hazards associated with chemicals in unlabeled pipes and how the employer will inform other employers at a multi-employer worksite of the hazards to which their employees may be exposed.
  - c. Get training from your employer on a variety of other health and safety hazards and standards that your employer must follow. These include electrical safety, lockout-tagout, blood-borne pathogens, confined spaces, construction hazards and a variety of other subjects.
2. Request information from your employer about NERC standards, worker injuries and illnesses, job hazards and workers' rights.
  - a. Request information from your employer on safety and health hazards in your workplace, chemicals used in your workplace, tests your employer has done to measure chemical, noise and radiation levels, precautions you should take and procedures to be followed if you or other employees are involved in an incident or are exposed to hazardous chemicals or other toxic substances.
  - b. Request copies of appropriate standards, rules, regulations and requirements that your employer should have available at the workplace.
  - c. Review the log and summary of occupational injuries and illnesses at a reasonable time and in a reasonable manner or have an authorized representative do so for you.
  - d. Access relevant exposure and medical records.
  - e. Employers must inform you of the existence, location and availability of your medical and exposure records when you first begin employment and at least annually thereafter. Employers also must provide these records to you or your designated representatives within 15 working days of your request. When an employer plans to stop doing business and there is no successor employer to receive and maintain these records, the employer must notify you of your right of access to records at least 3 months before the employer ceases to do business.

- f. Observe any monitoring or measuring of toxic materials or chemicals, as well as harmful physical agents, such as noise, and see the resulting records. If the exposure levels are above the NERC limit, the employer must tell you what will be done to reduce the exposure -- the right to observe monitoring exists only where monitoring is performed pursuant to a standard that provides employees with the right to observe.
3. Request action from your employer to correct hazards or violations.
  - a. You may ask your employer to correct hazards even if they are not violations of specific NERC standards. Be sure to keep copies of any requests you make to your employer to correct hazards.
  - b. File a complaint with NERC if you believe that there are either violations of NERC standards or serious workplace hazards.
  - c. File a complaint and request NERC to conduct an inspection if you believe serious workplace hazards or violations of standards exist in your workplace. You can file a complaint online, in writing, by telephone or fax. If you want a NERC inspector to come inspect your workplace, put your complaint in writing and send it to the NERC.
  - d. Request in your written complaint that NERC keep your name confidential if you do not want your employer to know who filed the complaint.
4. Be involved in NERC's inspection of your workplace.
  - a. Have an authorized employee representative (such as a union representative) accompany the NERC compliance officer during the inspection tour.
  - b. The authorized employee representative has a right to accompany a NERC compliance officer (also referred to as a compliance safety and health officer (CSHO) or inspector) during an inspection. Under no circumstances may the employer choose the workers' representative.
  - c. Where there is no union or employee representative, the NERC inspector must talk confidentially with a reasonable number of workers during the course of the investigation.
  - d. Respond to questions from the compliance officer and tell the compliance officer about workplace hazards, particularly if there is no authorized employee representative accompanying the compliance officer on the inspection "walkaround."
  - e. You and your co-workers have a right to talk privately and confidentially to the compliance officer whether or not a workers' representative has been chosen.
  - f. You may point out hazards, describe injuries or illnesses or near misses that resulted from those hazards and describe past complaints about hazards. Inform the inspector if working conditions are not normal during the inspection. Make sure that the inspector is aware if equipment has been shut down, windows opened or other conditions changed from normal.
5. Find out results of NERC inspections.
  - a. Find out the results of NERC inspections and request a review if NERC decides not to issue a citation.
  - b. If health hazards are present in your workplace, a special NERC health inspection may be conducted by an industrial hygienist. This NERC inspector may take samples to measure levels of chemicals or other hazardous materials.

- c. NERC will let the employee representative know whether your employer is in compliance. The inspector also will gather detailed information about your employer's efforts to control health hazards, including results of tests your employer may have conducted.
6. Get involved in any meetings or hearings to discuss any objections your employer has to NERC's citations or to changes in abatement deadlines.
  - a. File a formal appeal of deadlines for correction of hazards.
  - b. File an appeal of the deadlines that NERC sets for your employer to correct any violation in the citation issued to the employer. Write to NERC within 10 working days from the date the employer posts the notice requesting on extension of the abatement deadline if you feel the time is too long.
7. File a discrimination complaint.
  - a. File a discrimination complaint with NERC within 30 days if you are punished or discriminated against for exercising your safety and health rights or for refusing to work when faced with an imminent danger of death or serious injury and there is insufficient time for NERC to inspect.
8. Request a research investigation on possible workplace health hazards.
  - a. Contact NERC to request a health hazard evaluation if you are concerned about toxic effects of a substance in the workplace.
9. Provide comments and testimony to NERC during rulemaking on new standards.

