

*Office of Environmental Health and Safety*

New College of Florida Environmental Health and Safety Compliance Manual (edited and updated March, 2022)

# Introduction

The safe operation of New College of Florida (NCF) is of paramount concern in the performance of every job function at the College. Consistent with this policy, NCF will strive to the fullest extent practical to maintain a safe and healthful environment for our employees and internal as well as external customers. Safety and accident prevention are basic elements of every employee's job. Each employee is personally responsible for performing his/her duties with a genuine concern for his/her safety, the safety of NCF’s facilities, the safety of fellow employees, and the safety of the property and equipment under his/her care or control.

Safety and accident prevention are also basic management principles. Like every other College function, safety must be managed. Management/Administration at every level must consistently provide leadership on safety and accident prevention matters, take prompt corrective action, and seek to eliminate unsafe actions and conditions to the fullest extent practical. Through the combined efforts of all employees and the appropriate commitment of NCF resources, NCF will continue to maintain a safe working environment.

# Responsibilities

New College of Florida is committed to strong programs of accident and injury prevention and to complying with all relevant environmental and health and safety laws and regulations. New College of Florida will make all reasonable efforts to:

* protect the health and safety of New College of Florida faculty, staff students, and visitors;
* provide safe workplaces—academic, research, and administrative—for faculty, staff and students;
* provide timely information to faculty, staff, and students about health and safety hazards;
* identify and correct health and safety hazards and encourage faculty, staff, and students to report hazards;

Good health and safety practices are a responsibility of each faculty member, staff member, and student. Line responsibility for good health and safety practice begins with the supervisor in the workplace, laboratory or classroom and proceeds upward through the levels of management. In academic areas, supervisors include the professors, associate/assistant professors, lab instructors, class instructors, principal investigators, or others having direct supervisory authority. Academic levels of management are the department chairperson, dean, and the Provost. Administrative levels of management include mid- management, directors, and vice presidents. Final responsibility for health and safety policy and programs rests with the President of the College.

The Director of Environmental Health and Safety (EHS) and Emergency Management (EM) is responsible for recommending College-wide health and safety policies; ensuring overall institutional compliance with policies, statutes, and regulations; monitoring the effectiveness of the safety programs; and providing central health and safety services to all

areas of the College. All College supervisors, including faculty supervisors, are responsible for protecting the health and safety of employees and students under their supervision. This responsibility entails:

* implementing New College of Florida health and safety policies, practices and programs;
* ensuring that workplaces and equipment are safe and well maintained;
* ensuring that workplaces or laboratories are in compliance with NCF policies, programs and practices.

All College managers, academic and administrative, are responsible for ensuring that:

* individuals under their management have the authority to implement appropriate health and safety policies, practices and programs;
* areas under their management have adequate funding for health and safety programs, practices, and equipment;
* areas under their management are in compliance with NCF‘s health and safety policies, practices and programs.

Environmental Health and Safety (EH&S) is responsible for:

* reviewing legislation, recommending policies, and monitoring compliance with environmental health and safety statutes and regulations and College health and safety policies and programs;
* providing guidance and technical assistance to supervisors and managers in the departments, and other work units in identifying, evaluating, and correcting health and safety hazards;
* developing programs for the safe use of hazardous, radiological, biological, and chemical substances and lasers;
* providing training materials, assistance, and programs in safe and healthy work practices;
* providing for emergency services for incidents involving hazardous materials;
* providing fire prevention services;
* operating hazardous waste management services.

Employees and students are responsible for:

* keeping themselves informed of conditions affecting their health and safety;
* participating in training programs provided by their supervisors and instructors;
* adhering to healthy and safe practices in their workplace, classroom, laboratory and student campus residences;
* advising their supervisors or instructors of serious hazards in the workplace, classroom or laboratory.

# Facility Design

Facilities will be designed in a manner consistent with health and safety regulations, standards of good design, and in compliance with the Florida Fire Prevention Code (FFPC), the Florida Building Code (FBC), and other codes that may apply to the facility use. The Physical Plant and Facilities Departments are charged with primary responsibility for the maintenance, design, construction, and/or renovation of facilities, together with EH&S, help to ensure that there is appropriate health and safety review of facility concepts, designs, and plans.

# Unsafe Conditions

Unsafe conditions which cannot be corrected by the supervisor or manager must be reported to the next higher level of management. Any supervisor or manager who becomes aware of a serious concealed danger to the health or safety of individuals shall report this danger promptly to the Department of EH&S and to the faculty, staff and students who may be affected. New College of Florida encourages employees and students to report health and safety hazards to their supervisors, managers, or EH&S. Employees and students shall not be discharged or discriminated against in any manner for bona fide reporting of health and safety hazards to NCF or to appropriate governmental agencies. Supervisors shall inform students and employees of this policy and encourage reporting of workplace hazards. The Director of EH&S/EM has the authority to curtail or shut down any College activity considered to constitute a clear and present danger to health or safety. In the event of such curtailment or shutdown, the Vice President of Finance and Administration shall be immediately notified. In his/her absence, the Provost and the President shall be notified in that order.

NCF’s program for providing a safe workplace for faculty, staff and students includes:

* Facility design;
* hazard inspection and corrective action;
* shutdown of dangerous activities;
* Continuity of Operations Planning (COOP), and Emergency Planning and Preparedness.
* Facility Inspections
	+ Inspections will be conducted as required by federal, state, city and county regulations by regulatory agencies, and college staff.
	+ The frequency of inspections should be proportional to the magnitude of risk posed in the particular workplace.
	+ Inspections are also required whenever new substances, processes, procedures, or equipment presenting new health and safety hazards are introduced into the workplace. Means of correcting discovered hazards and/or protecting individuals from the hazards shall be determined and implemented promptly.

Environmental Health and Safety and Campus Police provide guidelines for emergency response plans. Every building or department shall have individual emergency response plans. The plan shall include evacuation and assembly procedures, reporting and communication practices, training, and drills. Exits shall remain free of obstructions and materials that could render the exit hazardous. In areas where hazardous materials are used, handled, or stored, the emergency response plan shall conform to the NCF COOP and Emergency Preparedness Plans.

# Systems of Communication

Training shall be communicated in a manner readily understandable to faculty, staff and students, in accordance with the communication policy outlined below. Supervisors, both faculty and staff, shall establish, implement and maintain a system for communicating with employees and students about health and safety matters. Information must be presented in a manner readily understood by the affected employees and students. Due attention must be paid to levels of literacy and language barriers. Verbal communications should be supplemented with written materials or postings. Whenever appropriate, statutes and policies affecting employees and students shall be available in the workplaces. Faculty, staff, and students who may come in contact with hazardous substances or practices either in the workplace or in laboratories shall be provided information concerning the particular hazards which may be posed, and the methods by which they may deal with such hazards in a safe and healthful manner. In areas where hazardous chemicals are used, handled, or stored, communications about these hazards shall conform to the NCF Chemical Hygiene Plan.

# Safety Committee

A safety committee consisting of a cross representation of the campus population will be formed to evaluate safety and health matters of a general or specific nature affecting the campus community. This committee established by charter will report to the Director of Environmental Health and Safety, or his/her designee, and will meet on a regular and recurring basis as established.

# Training

Supervisors shall be trained or knowledgeable in the safety and health hazards to which employees and students under their immediate direction and control may be exposed. Faculty, staff and students shall be trained to protect themselves from hazards in their working environment. Supervisors, both faculty and staff, shall train employees and students in:

* general health and safety practices;
* job-specific health and safety practices and hazards;
* recognition and assessment of health and safety risks;
* how to minimize risks through sound safety practices and use of protective equipment;
* regulations and statutes applicable to their work; and,
* New College of Florida’s health and safety policies.

Training shall occur:

* when an employee is hired;
* when an employee or student is given a new assignment for which training has not previously been received;
* whenever new hazards are introduced by new substances, processes or equipment.

# Safety and Health Training

Safety and Health training is an essential component of an effective safety program. Safety and health training include:

* Training new employees
* Training for supervisors
* Specialized training
* Defensive driving
* Training program goals and objectives
* Person (s) responsible for training
* Methods of training
* Analysis to determine training needs (injuries/illness)
* Training program content
* Training program outline
* List of training aids (videos, tapes, equipment)
* Alternative training sources (Risk Management, hospitals, etc.)
* Hazard identification system
* New employee orientation program
* Policy for enforcing safety rules

Although each component will not be examined in detail, many are self-explanatory and will be accomplished simply by getting training plans and programs down on paper. This section includes information on the goals and objectives of training, specific components of employee training, aspects necessary for supervisor training, as well as a review of the types of safety training and when it should be conducted. Safety training is most effective when incorporated into other training on job performance and procedures. The level and complexity of the training will depend on the type of exposures, building location and potential hazards for those type people.

The primary goal of general safety and health training is to ensure that all employees understand and are aware of the hazards they may be exposed to, and the proper methods for avoiding the hazards. The goal for supervisor training is to enable supervisors to understand the key role they play in carrying out safety and health responsibilities.

# Categories of Training

There are three categories for safety and health training: orientation (new people, equipment or procedures), job-specific training and general or ongoing training. For safety and health training, there are key times when the training should be initiated:

* New hires (orientation)
* New equipment or procedures
* Ongoing or General safety training
* Employee performance needs improvement

# New Hires

The obvious situation is during a new employee orientation period. The opportunity will be taken during the first few weeks to provide new employees basic information about general safety procedures and rules. As a minimum a summary of safety expectations will be provided and any questions answered about safety related procedures or rules. While explaining the workers' compensation system, emphasize the importance of using safety devices and following safety rules. For employees injured while knowingly violating a safety rule or failing to wear or use a required safety device, workers' compensation benefits may be reduced 25%. During the orientation process, don't overwhelm the individual, but do include these points:

* Management is sincerely interested in preventing losses.
* Accidents ARE preventable.
* Each employee is expected to report unsafe conditions to their supervisor.
* No employee should perform a job that appears unsafe.
* All injuries are to be reported at once.
* Safety rules that are a condition of employment should be explained immediately.
* Injury fraud will be dealt with utilizing the appropriate legal remedy available.

# Job-Specific

The next category of training is job-specific training. Each employee should be given specific on-the-job training so that the individual will be able to perform the job safely. As previously stated, safety training is most effective when incorporated into training related to the tasks being performed by that individual. When explaining how to fill orders, or enter data, or sort mail or whatever the position entails, incorporate safe job procedures into the general job procedures. The following are guidelines recommended for training of employees prior to performing specific job tasks:

1. Supervisors should carefully review with each employee the specific safety rules, policies and procedures that are applicable.
2. Employees should receive specific verbal instructions on how to do the job safely.
3. A demonstration should be provided using safe work practices.
4. Employees should be observed performing the work to ensure that proper procedures are being utilized.
5. Safe work practices should be reviewed with employees whenever new procedures, routines, or equipment are presented.
6. At all points during this training, ask the employees to explain the procedures back to ensure he/she understands.

For job-specific training, on-the-job training techniques should be used. This can involve over-the- shoulder training (as was just discussed) or training through a job safety analysis (JSA). The most direct approach is the over-the-shoulder technique where employees are shown, using the actual workstation, how to perform the job safely. A job safety analysis and its results may be used for training purposes. This involves studying and recording each step in a job, identifying existing or potential hazards, and determining the best way to perform the job in order to reduce or eliminate the risk.

The advantage to this method is that it allows for determining the safest way to perform the job in conjunction with the person actually doing the work. The information obtained from the JSA can also be used for:

1. Updating operating procedures
2. Training other employees
3. Conducting inspections
4. Investigating accidents

# Ongoing or General Safety Training

A third category for training is on-going, or general safety training. This is training for supervisory and non-supervisory employees. Every employee should be required to attend a general safety training session on at least a quarterly basis. These sessions, or meetings, can be within individual units, but should be structured. In fact, the use of small group meetings can be an effective tool in introducing and reinforcing a variety of safety-related subjects. Department of Financial Services, Division of Risk Management or USF Safety Florida Consultation Program has a video library with videos and written materials that can be used in these small group meetings. These videos are loaned on request to the safety coordinators at each agency. Most of the videos are relatively short (10-15 min) and can be used in these group-training sessions. There are videos on a variety of topics including ergonomics, employment discrimination issues, fire safety, stress, lifting, violence in the workplace and many others.

Another advantage is that the meetings provide a means for management to provide critical/new information in a timely fashion. It is advisable to keep minutes of these sessions so that all training is documented (participant sign in sheets), and also, that any suggestions made can be followed up on. The safety program itself should also be used as a basis for this ongoing training, reviewing segments of the program at each meeting. A review of losses within that unit (department) can also serve as a basis of training (causes, trends, preventive measures, corrective actions, etc.) Take advantage of routine staff meetings to promote the safety program and employee involvement in the program.

In order to perform the normal role of a supervisor, an individual must have training/coaching skills. In order to perform as a supervisor concerned about safety, the individual must not only have training/coaching skills, but must also have been trained in safety issues. Some safety related responsibilities/skills of a supervisor may include:

* Performing JSAs or JHAs
* Maintaining physical protection within his/her unit
* Conducting accident investigations
* Reinforcing training and protective measures

Job safety analyses (JSAs) or job hazard analyses (JHAs) should be conducted by supervisors. However, these supervisors must be trained and provided with guidelines regarding how and why to conduct the JHA.

The following are highlights of the key segments of this program.

1. Preparing for a JHA
2. Performing a JHA
	1. list basic job steps
	2. identify existing/potential hazards
	3. recommend corrective measures
3. Using results of JHA

First of all, establish the high priority jobs to analyze. This will typically be those that present a greater risk to employee safety and health, or those jobs that have already produced a number of employee injuries. Keep in mind that ALL jobs should eventually undergo a JHA but concentrate on those with the highest hazard potential first. The actual job hazard analysis is a three step process:

1. List the basic job steps necessary to perform the job from beginning to end.
2. Identify all existing and/or potential hazards associated with each step.
3. Develop corrective measures for ways to eliminate, reduce or control each hazard.

When listing the basic job steps, two common errors are: describing the job in too much detail, and describing the job in too little detail. Avoid this by listing as steps only those tasks that would be described to someone being trained to perform the job.

The next step involves determining the hazards and potential hazards. Beginning with the first job step, all existing or potential actions or conditions that could lead to injury or illness should be identified and listed. Be sure to examine each step for hazards that might reasonably occur, as well as noting when no hazards are identified. There are four factors to consider for each basic job step 2:

* The physical actions required for that step.
* The materials used.
* The equipment used.
* The conditions under which the step is normally performed.

Physical actions may be lifting, reaching or others. Typical questions to consider when determining hazards include: Is excessive force required? Is repetitive motion required? Are simultaneous actions required? Is lifting, pushing or pulling involved? Is a specific sequence of action necessary?

Materials may be chemicals, flammable materials, heavy objects, or hard to move objects. To identify hazards, ask certain questions: Is the material toxic? Is the material flammable or combustible? What is the weight of the material? Are the materials difficult to move?

Equipment may be any of the machinery or computers used in the workplace. Consider the following questions when determining possible hazards: Are moving parts guarded? If necessary, are interlocks provided? Are emergency stop switches accessible? Is the equipment properly positioned? Does the equipment store energy?

Conditions may consist of light, noise, temperature and housekeeping. Questions to ask include: Is there adequate lighting? Are there temperature extremes? Are there excessive noise levels? Is ventilation required?

Examine these four factors for each job step, and then allow some "what if?" questions. These can be posed for situations outside the normal operating conditions (wrong materials used, power outages, etc.)

Finally, develop recommendations or corrective measures for all hazards. Beginning with the first hazard, try to identify ways to eliminate or reduce the hazard. If corrective actions are developed at the actual workstation, this allows for checking whether or not the control is feasible or practical. This also allows for input from the employee that will be affected. These recommendations are often related to the same four factors examined when determining hazards: physical actions, materials, equipment and conditions.

Results of JHAs can be used in several ways. For one, JHAs can be used as a guideline to the standard operating procedures for a job, while also providing a detailed analysis of the job. Job hazard analyses are particularly useful for training purposes as they are essentially a step-by-step guide for performing a job safely. Job hazard analyses can be used when developing inspection checklists, as hazards have already been identified, and JHAs are valuable during accident investigations as procedures leading up to the accident can be compared against the standards identified in the JHA.

Another safety related responsibility of supervisors is maintaining physical protections within their unit. This will include not only fire protection, but the recognition and control of all physical hazards. This is accomplished on a day-to-day basis through informal walk-through inspections which were discussed earlier. Conducting accident investigations is another responsibility of the supervisor. This will be discussed in greater detail later in this unit, but it is important that the immediate supervisor be involved as he/she is most familiar with the work area.

Yet another safety related function of the supervisor is reinforcing safety training. A standard duty should be to reinforce employee training on the nature of potential hazards and the protective measures required. This can be done through continual performance feedback and if necessary, through the enforcement of safety rules, policies and procedures.

To emphasize what was stated earlier, the primary goal of general safety and health training is to ensure that all employees understand and are aware of the hazards they may be exposed to, and the proper methods for avoiding the hazards. The goal for supervisor training is to enable them to understand the key role they play in carrying out their safety and health responsibilities.

In addition to knowing everything a supervisor must know about the function of his/her particular unit, he/she must be trained in these safety activities. This all relates back to management commitment and the willingness to change the "corporate" viewpoint toward safety. No matter how knowledgeable or concerned a supervisor is, if there is no support or authority, the safety program will quickly be just another dust collector.

There are various courses specifically designed for training the supervisor. Topics typically will include:

* Loss Control for Supervisors Accident Investigation
* Safety Training
* Material Handling Machine Guarding
* Employee Involvement in Safety Fire Safety

There are various methods supervisors can use in training employees and can include on-the-job, computer based lectures, or case studies. As previously mentioned, a variety of training videos are available through Risk Management. Topics include accident investigation, driver safety, ergonomics, general safety, hazardous materials, liability/employment discrimination, lifting, occupational disease, safety management, slips/trips/falls, violence in the workplace and wellness issues.

At a minimum, all pertinent rules, policies and procedures should be reviewed with the employee. This is vitally important if disciplinary actions are going to be taken for any violations. Verbal instructions and directions on performing the job safely should also be provided. Proper procedures should be demonstrated. To achieve the highest level of success with the training - have the employee perform the task!! This is still the best method as far as retention by the employee. So whether it is operating a boat or adjusting a chair, let the employee do it!

After training is complete, a follow up with employees is necessary. Observe the actions of employees following training to determine whether or not they are following correct procedures. When deficiencies are found, corrective actions should be taken. This could be on the spot corrections or more formal retraining sessions. These issues were discussed earlier under "job specific" training, but the point to keep in mind is that the supervisors must be able to conduct the training.

Specific components of training programs depend on several factors, but the basis of all training should be NEED, whether that is because it's required or because there is an identified lack of knowledge. Some training will be done because there is a requirement (hazardous communication (HazCom), bloodborne pathogens, etc.) although it should be done from a moral/ethical/humanitarian standpoint anyway. The primary focus of efforts should remain on what the needs are.

So first of all, determine what the individual training requirements and needs are, and then work to deliver the programs with the overall purpose being to provide employees with information that will assist them in performing their jobs more safely.

Measure the success of the training program through "attitude surveys" or observations of employee behavior (Are proper lifting techniques being used? Is assistance asked for when needed?) .

Remember that training is not a "cure-all" for safety related problems but it is a necessary component in certain situations, as well as being a required component in any safety program. Training should be conducted when an agency has new employees, new equipment, procedures, information, or technology or when employee performance needs improvement. Safety coordinators and supervisors will also be involved in job specific training, which is teaching the employee how to perform a specific job and how to perform safely. Ongoing training should be provided, and may be done at staff meetings, safety committee meetings and other group meetings.

# Accident Investigations

The Director of Environmental Health and Safety will review all reported employee and non- employee accidents. In addition to the ***First Report of Injury Form*** required to be completed for work-related accidents, supervisors and employees shall complete the ***Incident and Injury Investigation Form*** describing how the accident happened and how it may be prevented in the future. Depending on the nature and severity of the accident, the Director of Environmental Health and Safety may conduct an accident investigation to gather additional information and documentation. The Campus Safety Committee may conduct accident investigations at their discretion or as requested by the College Administration, in conjunction with the Director of Environmental Health and Safety.

Accident investigation is a very important element of any safety program and a good accident investigation serves several purposes:

* 1. For all accidents, an accident investigation identifies the unsafe acts or conditions that caused an accident so that these acts and conditions can be controlled or eliminated thereby preventing similar accidents in the future.
	2. For employee injuries, an accident investigation can reveal, instances of workers’ compensation fraud.
	3. For accidents involving non-employees, an accident investigation is the basis for determining an agency's liability.
	4. An accident investigation satisfies the requirements (federal, state, agency) for an investigation to be done.
	5. Accident investigations demonstrate concern by management for the safety and health of employees and a desire to provide a safe place to work.

# Introduction

Accident investigation is an essential step towards making changes that can prevent recurrence of accidents from similar causes. If anything positive results from an accident, it is the opportunity to determine the root causes and how to eliminate them so as to prevent future recurrences. Thorough accident investigation can identify hazardous activities and conditions within an organization. By definition, this knowledge is gained after, rather than before, the occurrence of an accident.

Accident investigation involves more than merely filling out forms. Well-managed organizations insist on quality accident investigations, just as they insist on efficient, quality production. Part of the performance evaluation for a supervisor or team leader may be based on how well accident investigation is handled.

# Accident Reporting

A good accident investigation program is based on an effective, thorough accident notification plan. Many organizations make the mistake of requiring notification and investigation of only “serious” accidents. All accidents must be reported as soon as possible whether they did or could have resulted in personal injuries, illnesses, or property damage. For example, a tool falling off a platform that is missing toe boards might not hurt anyone. However, it just as easily could have fallen on someone’s head, inflicting a serious injury. Regardless of the outcome, this kind of incident should be reported, the cause investigated, and corrective action taken to prevent recurrence. When the causes are removed, accidents can be prevented. To help establish an effective accident reporting system, make sure the subject is covered in the new employee orientation program.

Accidents are not just events that cause injuries or property damage, but can be “near misses” that result in neither injuries nor damage. A supervisor or team leader has a personal interest in every accident that occurs in his or her department. In the interest of prevention, team leaders and supervisors must learn the contributing causes for every accident so they can be eliminated.

# Finding Causes

The purpose of accident investigation is to determine causes and recommend corrective actions to eliminate or control these hazards. Accident investigation should be aimed at fact-finding rather than fault finding; otherwise, the investigation can do more harm than good. The emphasis should be on identifying all possible causes, not on who could be blamed for the accident. An attempt to place blame damages the investigator’s credibility and generally reduces the amount and accuracy of information received from workers.

This does not mean oversights or mistakes should be ignored, nor should that personal responsibility not be determined, when appropriate. It means that the investigation should be concerned only with the facts. To do a quality job of investigating accidents, the investigator must be objective and analytical.

There are many factors that combine to cause accidents. The theory of multiple causation states that it is the random combination of various factors that results in accidents.

A report must do more than just identify unsafe acts or hazardous conditions surrounding an incident. These may be only contributing causes but not the root causes of a specific accident. For example, an accident report might state that an oily patch on the floor caused the accident. Instead of merely noting there was oil on the floor, the supervisor must determine how and why the oil got there. If there was an equipment lubrication leak, had the condition been previously reported? If poor maintenance was the cause, had that been reported? If so, when? If not, why not? These are the kinds of questions that must be asked and answered (i.e., who, what, where, when, how, and why).

Generally, the procedures followed during an investigation are designed to elicit clues to other problems. Inadequate maintenance, poorly designed equipment, untrained employees, and lacks of policy enforcement or standard procedures (management control) are all causative factors.

# Taking Immediate Action

The safety and health of employees and visitors must be the primary concern when an accident occurs. If an injury or illness results, make sure the affected persons get immediate medical attention and take steps to provide for emergency rescue or evacuation, as necessary. In addition, take any actions that will prevent or minimize the probability of further accidents happening as a result of the initial accident.

# Securing the Accident Site

After rescue and damage control are completed, the accident site must be secured for the duration of the investigation. It is essential to barricade or isolate the scene with ropes, barrier tapes, cones, and/or flashing lights to warn people or otherwise restrict access to the area. In extreme cases, guards may be posted to make sure no unauthorized persons enter the scene.

Nothing should be removed from the site without approval of the person in charge of the investigation. The site should be maintained, as much as possible, just as it was at the time of the accident to help investigators identify and examine evidence.

# Preserving Evidence

Time is critical when investigating accidents. The faster the investigator gets to the accident scene, the less chance there is that details will be lost. A prompt and careful investigation will help to answer the questions of who, what, where, when, how, and why. For example, witnesses will remember more facts, chemical spills will not have had time to evaporate, and dust and debris will remain as it was.

Preserving evidence at the accident scene ultimately makes the investigative process much less frustrating. Observing and recording evidence such as instrument readings, control panel settings, and details of weather and other environmental conditions can

greatly improve investigation results. Evidence can be preserved on film, recorded on tape, diagramed, or sketched. Detailed notes must accompany any pictures or drawings.

# Recording Visual Evidence

Visual evidence should be recorded by using digital cameras, video cameras or camera phones, drawings, and notes. The camera is one of the most valuable tools for studying accidents. A digital camera or your phone is often preferred by those with no photographic experience. Photographs can be studied in detail and at length to look for things initially overlooked. General and specific scenes should be photographed in order to make comprehensive visual records. No one can predict in advance which data will be most useful, so take photographs from many different angles. An old saying for accident photographers is “overshoot and under print.” This means take every possible photo that might be needed, and make necessary enlargements after the proofs have been studied. In addition, accurate, complete, and annotated sketches and diagrams of the accident scene should be made.

Photographs of objects involved in the accident should be identified and measured to show the proper scale and perspective. A ruler or coin can be placed next to objects photographed close up to demonstrate the object’s size. Accurate measurements of the area, equipment, and materials involved can be vital to accident investigations, with or without photographs.

# Effective Use of Witnesses

If witnesses are found and interviewed promptly, they can serve as the best information source about an accident. The following sections offer some useful tips for finding and interviewing witnesses.

# Identifying Witnesses

Avoid restricting the search for witnesses to those who saw the accident happen. Anyone who heard or knows something about the event may offer useful information. Ask witnesses to identify and document the names of others who were in the area, so that everyone can be contacted.

# Interviewing Process

Witnesses should be interviewed one at a time in privacy, as soon after the accident as possible. The accuracy of people’s recall is highest immediately following an event. A prompt interview minimizes the possibility of a witness subconsciously adjusting his or her story. If too much time elapses, many things can cloud a person’s memory. For example, hearing other opinions or reading stories about the accident can influence a witness. A person with a vivid imagination can “remember” situations that did not actually occur. Make sure to set aside time at the beginning of the investigation to interview as many witnesses as you can.

Whenever possible, interviews should be conducted at the accident site. This gives witnesses an opportunity to describe and point out what happened. Also, being at the scene can spark a person’s memory. Tactful, skilled investigation will usually elicit greater cooperation from employees. Remind witnesses that you are interested in the facts of the accident, not in placing blame. Such reassurance can dispel people’s fear that they may incriminate themselves or others.

# How to Interview

When conducting a witness interview, establish a relaxed atmosphere. Be a good listener. Witnesses should be allowed to tell their stories without interruption or prompting. More detail can be sought after the full story has been told. Interruptions can derail a person’s train of thought, influence answers, and inhibit responses. To elicit the most information, open-ended questions without leading words are best. For example, asking “Where was he standing?” is preferable to “Was he standing there?” Remember that the purpose is to determine the facts of the accident and to gain as much information from witnesses as possible. Questions should cover the specifics of who, what, where, when, how, and why.

Take notes and record employee statements, as unobtrusively as possible, for later review. In some cases, it may be best to wait until the employee has finished explaining what happened before making notes or recording details. If the employee’s statement is recorded, get his or her permission and have it typed for the employee’s review, corrections, and signature. After the witness is through, always repeat the information as it is understood. This feedback technique reduces misunderstandings and often leads to further clarifications.

Employees who have been directly involved with the accident should be contacted first, followed by eyewitnesses, and those who were nearby. Always use discretion in situations where employees have been injured. Fellow workers might be in shock, unable to speak coherently, or have no memory of the accident. Sometimes it is better to postpone interviews until the employee or a witness who has been involved is in a more stable physical or emotional condition. A part of the emergency should include care for traumatized co-workers.

It is helpful to solicit ideas from the interviewed employees regarding ways to prevent a recurrence of the accident. Often they will have the best suggestions. This will also help them to feel involved in the investigation and provide an opportunity to recognize their willingness to participate. Be sure to record these as suggestions made before causes have been determined.

The interviews should end on a positive note. Thank each individual for his or her time, information supplied, and ideas offered.

# Reenacting the Accident

The investigator may want to ask employees to show “what they mean or how it happened.” In some cases, reenacting an accident can provide valuable information about how and why it occurred. Expert investigators have learned to use this technique with caution, however, so the reenactment doesn’t cause another accident.

Before asking people to reenact the scene, follow these steps:

1. Ask employees to explain what happened first. This preliminary explanation should give additional insight about the accident.
2. Make sure that the witnesses thoroughly understand that they are to go through only the general motions of the event under close supervision. They should not repeat the exact actions that produced the original event.

# Selecting a Location

When it is not possible to interview people at the accident site, choose another location free from distractions and away from other witnesses. Privacy is essential. When people are discussing what they saw take place, they can influence other witnesses. You may want to avoid having people revise their stories. Do not pressure or influence witnesses. If possible, do not use your office to conduct interviews; employees may find the supervisor’s office intimidating, inhibiting, or distracting.

# Accident Investigation Reports

The purpose of accident reporting is to alert and inform management and other concerned people about the circumstances surrounding an accident. The report should record in clear, concise language all appropriate facts of the accident. Write down all causal factors that might have led to the event. These factors will be assigned to one or more of the following causal categories: equipment, environment, personnel, and management.

Here are some typical questions to help you identify the accident cause: Was there a procedure in place to detect the hazardous condition? Was the correct equipment, material, or tool readily available and in safe condition? If so, was it used according to established procedure?

Responsibility for carrying out recommended corrective actions and a timetable for their completion should be established. Completion reports should be required as a means for assuring the recommended actions have been carried out.

# Filling Out a Report

An accident report is designed primarily for investigation of accidents involving injuries. However, it also can be used to investigate occupational illnesses arising from a single exposure (for example, dermatitis caused by splashed solvent or a respiratory condition caused by the release of a toxic gas).

All questions on this form should be answered. If no answer is available, or the question does not apply, the investigator should indicate this on the form. Answers should be complete and specific. Supplementary sheets can be used for other information, such as drawings and sketches, and should be attached to the report. A separate form should be completed for each employee who is injured in a multiple-injury accident.

The report form meets the record keeping requirements specified in OSHA Form 101. The individual entries are explained below.

Department: Enter the department or other local identification of the work area to which the injured is assigned (for example, maintenance shop or shipping room). In some cases, this may not be the area in which the accident occurred.

Location: Enter the location where the accident occurred if different from the employer’s mailing address.

1. Name of injured. Record the last name, first name, and middle initial.
2. Social Security number.
3. Sex.
4. Age. Record current age.
5. Date of accident. Or date of initial diagnosis of illness.
6. Home address.
7. Employee’s usual occupation. Give the occupation to which the employee is normally assigned (for example, assembler, lathe operator, clerk, etc.).
8. Occupation at time of accident. Indicate occupation in which the injured is working at the time of accident, if other than his or her usual occupation.
9. Length of employment. Check appropriate box to indicate how long the employee has worked for the organization.
10. Time in occupation at time of accident. Record the total time employee has worked in occupation indicated in Item 8.
11. Employment category. Indicate insured’s employment category at the time of accident (for example, regular, part time, temporary, or seasonal).
12. Case numbers and names of others injured in same accident. For reference purposes, names and case numbers of all others injured in the same accident should be recorded here.
13. Nature of injury and part of body. Describe exactly the kind of injury, or injuries, resulting from the accident, and the part, or parts, of the body affected. For an occupational illness, give the diagnosis and the body part, or parts, affected.
14. Name and address of physician.
15. Name and address of hospital.
16. Time of injury. In part B, indicate as closely as possible the hour and minute that the injury-producing accident occurred.
17. Severity of injury. Check the highest degree of severity of injury. The options are listed in decreasing order of severity.
18. Specific location of accident. Indicate whether accident or exposure occurred on employer’s premises. Record the exact location of the accident (for example, at the feed end of No. 2 assembly line, at support column No. 32 in the warehouse, or in the employees’ lunch room). Attach a diagram or map if it would help to identify the exact location.
19. Phase of employee’s workday at time of injury. Indicate what phase of the workday the employee was in when the accident occurred, in which hour of the shift the injury occurred (for example, first hour). In part C, record the type of shift (for example, rotating or straight day). If “other,” be specific.
20. Describe what happened. What physical things and procedures were involved? Provide a complete, specific description of what happened. Tell what the injured and others involved were doing prior to the accident; what objects or substances, operations, equipment, tools, etc., were involved; how injury occurred and the specific object or substance that inflicted the injury; and what, if anything, happened after the accident. Include only facts obtained in the investigation. Do not record opinions or place blame.
21. Accident sequence. Provide a breakdown of sequence of events leading to the injury. This breakdown enables the investigator to identify additional areas where corrective action may be taken.

In most accidents, the accident event and the injury event are different. For example, suppose a bursting steam line causes burns to an employee’s hands or a chip of metal strikes an employee’s face during a grinding operation. In these cases the accident event, the steam line bursting or the metal chip flying up, is separate from the injury event, which was the steam burning the employee’s face. The question is designed to draw out this distinction and to record other events that led to the accident event.

There also may be events preceding the accident event that, although not accident events themselves, contributed to the accident. These preceding events can take one of two forms. They can be something that happened that should not have happened, or something that did not happen that should have happened. The steam line, for example, may have burst because of excess pressure in the line (preceding event #1). The pressure relieve valve may have been corroded shut, preventing the safe release of excess pressure (preceding event #2). The corrosion may not have been discovered and corrected because a regular valve inspection/test was not carried out (preceding event #3).

To determine whether a preceding event should be included in the accident investigation sequence, the investigator should ask whether its occurrence (if it should not have happened) or nonoccurrence (if it should have happened) affected the event sequence that produced the accident and brought about injury.

Take enough time to carefully think through the sequence of events leading to the injury and record them separately in the report. The information found in the Finding Causes section, earlier in this chapter, can be used to help identify management system defects that may have contributed to events in the accident sequence. By identifying such defects, management may help prevent other types of accidents in addition to the one under investigation. (See Item 25, below).

For example, identifying failure to detect a faulty pressure relief valve would lead to a management review of all equipment inspection procedures. This review could prevent other accidents that might have resulted from failure to detect faulty equipment in the inspection process.

Additional sheets may be needed to list all of the events involved in the accident sequence.

1. Task and activity at time of accident. In parts A and B, first record the general type of task the employee was performing when the accident occurred (for example, pipe fitting, lathe maintenance, or operating a punch press). Then record the specific activity in which the employee was engaged when the accident occurred (for example, oiling shaft, bolting pipe, flanges, or removing material from the press). In part C, check the appropriate box to indicate whether the injured employee was working alone, with a fellow worker, or with a crew.
2. Posture of employee. Record the insured’s posture in relation to the surroundings at the time of the accident (for example, standing on a ladder, squatting under a conveyor, or standing at a machine).
3. Supervision at time of accident. Indicate whether, at the time of accident, the injured employee was directly supervised, indirectly supervised, or not supervised. If appropriate, indicate whether supervision was not feasible at the time.
4. Causal factors. Record causal factors (events and conditions that contributed to the accident) that were identified by use of the Finding Causes section earlier in this chapter, discussed under Item 21, above.
5. Corrective actions. Describe recommended corrective actions to be taken after the accident to prevent recurrence, including immediate temporary or interim actions (for example, removed oil from floor) and permanent actions (for example, repaired leaking oil line).

# Summary of Key Points

* + The purpose of accident investigation is to determine causes and recommend corrective actions to eliminate or control hazards and prevent recurrence of accidents. All incidents should be investigated, not only those that cause serious injury or property damage. The investigation should emphasize fact-finding, not finding fault.
	+ An organization should set up a plan for responding to accidents. The plan should specify what should be done in case of an accident, list names and phone numbers of people to call, and assign specific responsibilities to all persons involved in the Emergency Response Plan.
	+ When an accident occurs, supervisors should first see that injured persons get immediate medical attention, then secure the accident site for the investigation duration. Evidence can be preserved on film, recorded on tape, diagrammed, or sketched.
	+ Witnesses are often the best source of information about an accident. Supervisors should speak with anyone who was in the accident area, not only with those who actually witnessed the event.
	+ Witnesses should be interviewed one at a time as soon after the accident as possible to ensure accurate recall. The supervisor may ask witnesses to reenact, with appropriate safeguards, how an accident happened. Interviews should be conducted in a sensitive manner and in a comfortable location to avoid intimidating witnesses or influencing their stories.

Accident reports are designed to inform management and other concerned people about the circumstances surrounding an accident. Causal factors leading to an accident generally fall into one or more of the following categories: equipment, environment, personnel, and management. These reports must be filled out.

# Documentation and Recordkeeping

Required documentation and records shall be kept to demonstrate compliance with statutes, regulations and standards.

* All training attended by New College faculty and staff
* job-specific health and safety practices and hazards;
* how to minimize risks through sound safety practices and use of protective equipment;
* regulations and statutes applicable to their work;
* New College of Florida’s health and safety policies;
* First Reports of Injury;
* Accident/Injury Investigation Reports;
* OSHA 300 Log

# Legal Requirements

Chapter 284, F.S., requires the head of each agency to designate a safety coordinator who shall:

1. Develop and implement the loss prevention program, a comprehensive departmental safety program which shall include a statement of safety policy and responsibility.
2. Provide for regular and periodic facility and equipment inspections.
3. Investigate job-related employee accidents of his/her department.
4. Establish a program to promote increased safety awareness among employees.

Section 284.50(3), F.S., requires the agency head to report annually to the Governor (by January 15th) on any actions taken to prevent job related employee accidents together with suggestions of safeguards and improvements.

Section 284.50(4), F.S., provides that the Auditor General shall evaluate compliance of each department by evaluating the loss prevention program of each department.

# Rolls for College Units

* Management and Administration
	+ Provide support and backing for the Environmental Health and Safety Programs
		- The degree of success that a safety program achieves depends largely on obtaining and maintaining a commitment for support from upper management. Without the support of upper management, supervisors and employees are not likely to support and become involved in the safety program and chances for a successful and effective program are virtually non-existent. Support is essential from all 3 groups, but upper management support is critical as supervisors take their lead from upper management and employees from their supervisors. If supervisors and employees don't see evidence of upper management support,

they are not likely to be motivated to actively support the program. When seeking management commitment, management should be advised in a simple and straightforward manner, that the program will not succeed without upper management support and conversely, can be very successful with management support. The National Safety Council reports on a survey done by the American Institute of Plant Engineers that showed a positive correlation between the number of safety related incidents and the level of management participation in safety.

* + Demonstrates Concern for Employees
		- Upper level management generally is concerned about the safety and health of employees and support for an active safety program is a way for management to demonstrate this concern. The message to employees is that they are important to the organization as a person that they are a valuable, productive asset for the organization, and management is concerned about their safety and health. This type of concern can have a pronounced effect on employee attitude.
	+ Human Costs
		- One out of every 20 employees will suffer a serious job related injury or illness during the year resulting in an average lost time of 20 days. Injuries (including deaths) and illnesses cause pain and suffering and affect the employee, his/her family, co-workers, and the organization. Management should be advised that if they are concerned about their employees, they should do what they can to avoid accidents and the human costs associated with them.
	+ Economic Costs
		- Injuries and illnesses result in direct costs (medical costs, insurance premiums, and lost wages) as well as indirect costs (repair or replacement of equipment, hiring and training of new employees, time spent on paperwork relating to an accident, disruption of routine activities resulting in lost productivity, etc.) The direct cost of accidents is reflected in the insurance premium charged by Risk Management to each agency for a particular type of coverage. This premium is paid out of each agency's budget.
	+ Most Accidents Are Preventable
		- Accidents and illnesses do not just happen. They are caused. Therefore, most accidents are preventable. Effective safety program can theoretically prevent those accidents that are preventable (over 90%).
	+ Good Public Relations for the Agency
		- A successful safety program is one of the best employee and public relations tools available and it is relatively inexpensive compared to the favorable publicity it can generate. It shows a genuine concern for the health and well being of employees as well as a concern for saving taxpayer dollars.
* Supervisors
	+ Ensure new-hire orientation is given to new employees, or is followed up at the work level
	+ Ensure employees are given training that includes safe work practices on equipment, tools, machines, processes, etc.
	+ Personally conduct--or designate a qualified personnel to conduct-- regular inspections of the workplace
	+ Conduct frequent (daily) work discussions prior to the start of work that include safe work practices
	+ Uphold and enforce safe work practices. This includes influencing safe behavior by positive reinforcement such as recognition of worker’s safe work performance, and/or monetary or gift awards for safe behavior. Enforcement action can also influence safe behavior when applied towards workers who blatantly perform unsafe acts, or who continually perform in an unsafe manner
	+ Investigate all incidents and take immediate corrective action to prevent re-occurrence
	+ Provide safety meetings on a regular basis and require attendance of all workers
* Employees
	+ Are to follow safe work practices, and if they are unsure of what is the correct/safe way to perform a task or a job, they are to ask their foreman, supervisor or manager
	+ Must immediately report all unsafe equipment or tools to their foreman, supervisor or manager. This includes reporting unsafe behavior of other workers, if these workers are approached and remain unwilling to correct their unsafe actions or conditions.
	+ Are to uphold the safe work practices this company has established
	+ If injured on the job, or become ill, immediately inform their supervisor, foreman or manager

**Conclusion**

The following procedures have been developed based on OSHA Standards adopted by Governor’s Executive Order 2000-292, September 25, 2000, Florida Statutes, Section 284.50 (3), and 440.1025. These procedures provide minimum guidance for employees and employers to follow, to work safely, reduce the chance of becoming injured on the job, and reduce Workers Compensation claims for the College. Other procedures are written in compliance with state and federal environmental regulations to insure that the College and its employees are following appropriate environmental compliance laws and regulations that affect our campus.

Should you have questions or suggestions about any for these programs, you may contact your supervisor or the Director of Environmental Health and Safety.