

OCCUPATIONAL HEALTH AND HEALTH AND SAFETY MANAGEMENT FOR THE METAL RECYCLING INDUSTRY IN CANADA

Dear CARI Member:

This health and safety resource was written for the scrap industry by the scrap industry. It combines health and safety tools, tips, and techniques developed from real-life health and safety directors who have years of experience working in scrap operations. The manual was developed to accomplish one specific goal: to assist you in making your scrap operation a healthy and safe place for employees, customers, and visitors. The following is a brief description of the best way to use—and not use—this manual.

What the health and safety manual is

The manual's primary focus is worker health and safety and how to create a health and safety culture within your organization. The secondary focus is regulatory compliance (for example, with Provincial Health and Safety Legislation). This may seem somewhat backward compared to other health and safety manuals, but the authors feel that protecting workers is more important than the threat of regulatory fines. Besides, if you create a safe workplace, health and safety enforcement agencies will leave you alone. In addition, this manual contains the content required to build a health and safety management system in accordance with the requirements of Canada's Occupational Health and Safety Management System Standard CSA Z1000-06. CARI encourages its members to develop a health and safety management system approach using this manual. More and more organizations are using systems to manage areas like production, quality, environment, customer service and health and safety.

The health and safety manual is action-oriented, meaning there is work to do on your part. The best health and safety programs are custom-tailored to individual operations. We can't build a site-specific program, but you can. The tools are here to help you do that. Each module within the manual contains a "How do you do it?" section. Think of this as a checklist of what needs to be done. In most cases, completing the checklist requires getting out into your yard, evaluating your hazards, and taking steps to control them.

What the health and safety manual is not

This health and safety manual is not a fill-in-the-blank "instant" health and safety manual. While it offers sample wording of policies and procedures, these have no value until you make them your own. The health and safety manual on its own cannot save lives, protect workers, or even save you from health and safety enforcement inspectors/officers. It is merely a tool to assist in your quest to create a safer workplace.

How to use the health and safety manual

The manual is laid out in a logical progression, starting with basic health and safety fundamentals and moving toward the various aspects of regulatory compliance.

The first 10 modules represent the fundamental activities required to establish a positive health and safety culture and a management system that will assist with the implementation, maintenance and continual improvement of all the modules that follow.

Modules 11 to 27 represent the core activities required to manage health and safety and meet general legislated requirements.

Module 28 represents activities to control health and safety hazards identified within your organization as a result of the hazard assessment activity required by module 3. The specific health and safety hazards unique to specific pieces of equipment often found in recycling operations may or may not be applicable to your operation. In addition, your hazard assessment may identify health and safety hazards specific to your organization that will require controls which are not described in this manual.

We suggest that everyone start at the beginning of the manual and review each module to ensure all the parts of your health and safety management system are in place.

Achieving success

Like most things in life, building a successful health and safety program begins and ends with commitment. Health and safety cannot be No. 1 on the agenda just one day a month or one day a week. It cannot just be left up to the "health and safety guy." A healthy and safe recycling operation requires commitment to health and safety 24 hours a day, seven days a week, from the CEO to the bottom of the pyramid.

The process isn't easy, but the journey is a valuable one.

Thank you for your continuing interest in making our industry healthy and safe.

Best regards,

Len Shaw
CARI Executive Director

IMPORTANT NOTICE

It is your responsibility to know and comply with health and safety laws and regulations and any amendments thereto and to obtain appropriate legal advice to obtain that knowledge and comply with your legal obligations.

A detailed risk assessment in relation to your organization should be undertaken to determine the control measures that are appropriate to and required for your organization.

The guidelines suggested here are those of the CARI. They are offered for the purpose of general education and guidance only and should not be substituted for individualized legal advice.

No liability can be accepted for any errors or omissions, or in respect of events or circumstances which may ensue from the following of these guidelines without reference to appropriate legal advice and compliance with local legislative requirements.

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MODULE 1.0: Creating a Health and Safety Policy Statement

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All

WHAT IS IT?

A health and safety policy statement is a document that declares your company's commitment to health and safety. It recognizes health and safety as a company core value, on a par with production and quality. The document demands safe work practices from every employee and safe decisions from the management team. It's important that the health and safety policy statement be signed by the owner or principal of the company.

WHY IS IT IMPORTANT?

Many people believe that their company's commitment to health and safety is obvious. It only makes sense that working safely is to everyone's benefit, and that everyone is expected to "be careful" on the job. All too often, however, the pressures of a dynamic production-oriented environment muddy the health and safety message. By creating a written health and safety policy, you make your intentions crystal-clear.

WHAT IS REQUIRED?

- Create a health and safety policy statement that demonstrates the company's commitment to health and safety.
- Ensure that the chief executive of the company or location signs the health and safety policy statement.
- Introduce the document to all employees.
- Emphasize the health and safety policy during all new employee orientations.
- Emphasize the health and safety policy as part of ongoing employee training.
- Make the health and safety commitment part of the company's decision-making process.
- Review and revise the health and safety policy statement annually to ensure it is still relevant to current operations.
- Post a copy of the health and safety policy in a location that is accessible by all employees.

HOW DO YOU DO IT?

The process for creating a health and safety policy statement does not have to be difficult. The document itself does not have to be long or complex. In fact, some of the most effective health and safety policy statements are very short so they can be easily communicated and remembered by all employees.

It is very important that the policy statement be honest and captures the true commitment of top management. The Internet is filled with hundreds of sample health and safety policy statements that all say the "right things." While these are good examples to work from, the best health and safety policy statements are developed internally. A sample Health and safety Policy appears in Appendix A. This can be used as your health and safety policy statement if it truly captures your company's commitment to health and safety.

Once the document is created, it should be signed and dated by the leader of the company. This demonstrates that health and safety starts at the top.

Once completed, the document should be distributed to all employees. Think beyond just attaching it to paychecks. Consider holding a companywide or yardwide event to formally introduce the health and safety policy statement. A "big splash" event can be particularly useful for companies that may have allowed unsafe work practices in the past but are trying to recommit to a health and safety effort.

Make the health and safety policy statement part of everything you do. Share it with new hires, describe it to potential hires during the interview process, include it with bid proposals, etc. The more visible the document is, the faster it will become part of your organization's culture.

WHERE CAN I GET MORE INFORMATION?

You can use the sample Health and Safety Policy in developing your company's health and safety policy statement. The document appears in Appendix A.

APPENDIX A: Sample Health and Safety Policy

Health and Safety Policy

Health and Safety excellence is a key management value along with sales, quality, logistics, customer service, and financial performance. Our focus on health and safety is an important part of the way we conduct business and an integral piece to our business success. Everyone's first concern will be the health and safety of employees, contractors, customers and visitors. Our actions will provide a leadership example for the community in which we operate. Additionally, we will support the health and safety interests of our customers and suppliers.

Employees at all levels within the organization have distinct roles and responsibilities regarding health and safety. However, safety and the protection of our environment is everyone's responsibility. Through joint efforts, we promote ownership of health and safety by everyone. We are committed to the ongoing identification of health and safety hazards, assessing the related risks and establishing appropriate control measures.

We support a work safe attitude through the establishment of a Health and Safety Management System which includes: Risk Management, Joint Health and Safety Committee, Health and Safety Training Programs, Safety Standards and Procedures, and Incident/Accident Reviews. We are committed to adhering to health and safety legislation, ensuring that our employees are informed of and carry out their health and safety responsibilities. We will implement programs and hazard control measures that protect our employees and ensure safety excellence through continuous improvement management processes and initiatives.

Employer Commitment

The management team is committed to promoting a healthy and safe work environment, and protecting employees from workplace injury or illness.

Management Commitment

It is the responsibility of each manager and supervisor to maintain a healthy and safe work environment for our employees. As well, the management staff will take all reasonable precautions to protect employees from workplace injury or illness, maintain safe working conditions, and ensure they are trained and follow safe work practices.

Employee Commitment

It is the responsibility of each employee to be aware of and to respect the law, follow work instructions and workplace health and safety procedures, use all required safeguards and personal protective equipment, participate fully in training, and inform management of any unsafe situations.

All injuries, occupational illnesses, and accidents are preventable.

Together, we will make a healthy and safe workplace.

>Signature<

CEO

MODULE 2.0: Building a Health and Safety Culture

APPLICABLE STANDARD: N/A

EMPLOYEES AFFECTED: All

WHAT IS IT?

A health and safety culture exists when your company has made the jump from managing health and safety because the law requires it to living health and safety because it has become ingrained in all aspects of your operations. You know you're on the right track when your employees practice health and safety even when you aren't looking.

WHY IS IT IMPORTANT?

A health and safety culture is necessary for long-term safe operations. Health and safety programs often fail because they are rolled out without adequate employee involvement. Building a health and safety culture should involve everyone.

WHAT IS REQUIRED?

- Top management must be truly committed to health and safety all the time. If the job can't be done safely, then it should not be done at all.
- Everyone involved must believe that health and safety is as important as productivity, with zero tolerance for those who refuse to take ownership of their own safe workplace.

HOW DO YOU DO IT?

Top management must lead by example. Create a workplace that allows open discussion so employees feel free to discuss their concerns. Appeal to employees as stewards of the health and safety culture. Let them know that you need their help.

In addition, take the following steps:

- Have clear goals and objectives. Communicate the plan.
- Assign responsibilities. Everyone should know their roles. Be specific about who does what.
- Hold everyone accountable. Make use of work reviews, progressive discipline, praise, and rewards.
- Evaluate your culture. Talk to your employees. Use surveys and investigations.
- Make reviews part of normal operating procedures with standard time frames. Provide feedback.

WHERE CAN I GET MORE INFORMATION?

- CARI
- Your insurance carrier
- Other scrap operations

MODULE 3.0: Baseline Hazard and Health and Safety Program Assessment

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All

WHAT IS IT?

A hazard and health and safety program assessment is the process of analyzing each of your company's work areas and processes to determine what health and safety and hazards exist. It is also a way to evaluate key elements of your health and safety program and to see how employees are involved with the process.

WHY IS IT IMPORTANT?

Every scrap yard has the potential for hazards. A program assessment helps you to identify them, so that you can fix them or control them before they cause accidents. Furthermore, using the tools provided here, you can evaluate management's commitment to health and safety and the degree to which employees are involved as well your level of compliance with local health and safety legislation.

WHAT IS REQUIRED?

- Complete a written, documented hazard assessment of the workplace. The documentation must include:
 - what workplace was evaluated
 - identification of the person completing the assessment
 - the date the assessment was performed.
- Assess the workplace to determine if hazards are present, or are likely to be present. Look for health hazards and safety hazards. Health hazards may be categorized as; chemical, physical, biological, ergonomic, and psychosocial. Safety hazards may be categorized as; mechanical, electrical energy, potential energy, workplace condition, thermal energy.
- Following the assessment, correct all hazards by means of elimination, engineering, substitution, administrative standard and procedures, training and/or personal protective equipment.
- Reassess workplace hazards on a regular basis.

HOW DO YOU DO IT?

Develop a company hazard assessment

A sample worksheet appears at the end of this module to assist you. In addition, the "Health and Safety Inspections" module of this manual has additional information and can be used within your assessment process.

Walk around

The only way to assess your hazards is to get out and walk around, corner to corner and operation to operation. Use checklists in the areas you are assessing to determine hazards. Talk to employees. They will give you insight into problem areas. Portions of the checklists may need to be expanded or modified to suit your particular needs. At the conclusion of the tour, prioritize the identified hazards and begin the process of correcting them.

Correct the hazards

Generally, hazards can be mitigated through some combination of the following:

- first consider whether or not the hazard can be eliminated (e.g. can you stop using a certain chemical etc.)
- substitution (e.g. can you use a safer non-toxic chemical)
- engineering controls (e.g. repairing broken equipment, guards, handrails, etc.)
- administrative controls (e.g. creating work health and safety rules, procedures, polices, etc.)
- additional training
- personal protective equipment (PPE).

Training requirements

Training the assessor is very important to the validity of the assessment. Assessors should be trained on how to identify hazards and conduct the hazards assessment. CARI can provide you with information on training resources for conducting health and safety hazard assessments.

Audits

A yearly hazard assessment is done to ensure that you maintain a hazard-free facility. You will find that every time you do your assessment, you will see hazards you did not see the previous time, or you will discover new hazards that have entered the facility. You may use the same hazard assessment form to assess your facility as a whole rather than in parts.

WHERE CAN I GET MORE INFORMATION?

- Provincial Health and Safety Legislation
- CARI

MODULE 4.0: Hiring for Health and Safety

APPLICABLE STANDARD: N/A

EMPLOYEES AFFECTED: All

WHAT IS IT?

Hiring for health and safety involves implementation of strong hiring procedures that strengthen your health and safety culture through the elimination of bad hires.

WHY IS IT IMPORTANT?

Ask yourself: Which is easier—firing a bad employee or never hiring one to begin with?

Many scrap operations have curbed their turnover rate (and saved a lot of money) by getting tough on hiring procedures. No matter how shallow your labor pool is, there is no point in investing time and money in any “warm body” if that person is not going to stick around. From a health and safety standpoint, one bad hire can unravel your entire health and safety effort.

WHAT IS REQUIRED?

- Make a commitment to hiring only the best employees.
- Develop hiring procedures that are consistent from yard to yard and department to department.
- Talk about health and safety in the job interview.
- Get the candidate’s view on health and safety.
- Select a hire based on his or her experience and health and safety background.

HOW DO YOU DO IT?

The simplest way to start is by talking about health and safety during the interview. Ask open-ended questions about health and safety that require the candidate to respond with more than a yes or no.

Tell prospective employees what is required to work safely in your operation, including what personal protective equipment they will be required to use. Once you explain what is required, confirm their willingness to comply.

Probe for past experience regarding health and safety training. When you are choosing between two candidates with similar skills, the one with the most health and safety training will have a shorter learning curve.

Drug testing

Many scrap operations have significantly reduced health and safety problems by conducting pre-hire drug testing. Before starting a drug testing process, you will want to check your provincial laws to see what is legal in your area.

MODULE 5.0: Building an Employee Handbook

APPLICABLE STANDARD: N/A

EMPLOYEES AFFECTED: All

WHAT IS IT?

An employee handbook is a document that is given to every employee in your company. The handbook contains policies and rules that every employee must know and comply with to work within your scrap processing operation.

WHY IS IT IMPORTANT?

A handbook creates consistency and ensures that every employee, from your longest tenured worker to the newest hire, is aware of what is required to work at your company. It tells them what the rules are and what disciplinary action can be anticipated for breaking rules.

The first day on the job can involve a barrage of training, paperwork, and new faces—an onslaught of new information. Even if you provide comprehensive training, people will likely not be able to retain it all. An employee handbook gives the new hire something to refer to after the training is completed.

WHAT IS REQUIRED?

- Develop a list of rules, policies, procedures, and other information that you feel every employee needs to know to work within your company.
- Compile the information into a handbook (a guideline can be found in Appendix A).
- Consider having the handbook translated for non-English-speaking employees.
- Distribute the handbook to all employees.
- Make sure to review any changes from earlier documents.
- Incorporate the introduction of the employee handbook into new employee orientation.
- Document that every employee acknowledges receiving a copy of the handbook.
- Consistently enforce the policies written in the handbook.
- Review the employee handbook for changes on at least an annual basis.

HOW DO YOU DO IT?

Format matters less than content. The manual itself can be produced on large paper or small, or even on magnetic media. The idea is to make the information

readily accessible to the people who need to know it. Appendix A presents a sample checklist of topics that might be covered.

For the health and safety portion of the employee manual, feel free to use as much information from the CARI Health and safety Manual as you wish. It is a good idea to have legal counsel review all employment practices and policies to ensure they meet your local health and safety act/code and regulations, and that they pose no unwarranted liability.

Language barriers present a significant challenge to the scrap recycling industry. If policies and procedures cannot be understood by the parties involved, they do no good. You should make every effort to have your policy manual translated to suit the needs of your work force.

Review the contents of the handbook periodically with employees—certainly as policies change, but also when you observe that awareness of policies has sagged.

The employee handbook can play a major role in new employee orientation. Take the time to cover the content within the handbook. Avoid using it as a “read it yourself” document for training new hires.

Once both new and existing employees have read the handbook, have them sign and date a handbook receipt, and put the receipt in their employee file.

Employee handbooks can become outdated quickly. Make sure the content is reviewed on a periodic basis to ensure the information is still relevant.

APPENDIX A: Employee Handbook Design Template

Use this checklist to assemble key components for your employee handbook.

Introduction	
<input type="checkbox"/>	Welcome statement
<input type="checkbox"/>	Health and safety policy statement
Health and safety	
<input type="checkbox"/>	Work health and safety rules
<input type="checkbox"/>	Discipline policy
<input type="checkbox"/>	Reporting accidents and injuries
<input type="checkbox"/>	First aid procedures
<input type="checkbox"/>	Emergency procedures
<input type="checkbox"/>	Personal protective equipment
<input type="checkbox"/>	Use of equipment
<input type="checkbox"/>	Health and Safety Committee
<input type="checkbox"/>	Workplace Hazardous Materials Information System (WHMIS)
<input type="checkbox"/>	Work Refusal
<input type="checkbox"/>	Blood-borne pathogens
<input type="checkbox"/>	Lockout/tagout
<input type="checkbox"/>	Hazard communication
<input type="checkbox"/>	Post-injury return to work
Working at [<i>Company name</i>]	
<input type="checkbox"/>	Equal opportunity statement
<input type="checkbox"/>	Workplace violence and harassment
<input type="checkbox"/>	Substance abuse
<input type="checkbox"/>	Attendance
<input type="checkbox"/>	Holidays
<input type="checkbox"/>	Sick days
<input type="checkbox"/>	Leave
<input type="checkbox"/>	Vacation
<input type="checkbox"/>	Smoking policy

<input type="checkbox"/>	Cell phone and telephone use
<input type="checkbox"/>	
<input type="checkbox"/>	Handbook receipt

MODULE 6.0: New Employee Orientation/Training

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All new employees

WHAT IS IT?

New employee orientation begins the first day on the job and continues through the new employee's on-the-job training. During the orientation, new employees learn about your company's policies, procedures, benefits, and environmental, health, and health and safety programs.

WHY IS IT IMPORTANT?

The first few weeks on the job for a new employee can be overwhelming. The employee not only is inundated with information regarding rules and regulations, but also has questions and concerns about issues such as benefits, where to park or where to eat, how to do the job, etc. It is during this time frame that the employer must make every effort to address new employees' concerns in order to help them become safe and productive employees.

WHAT IS REQUIRED?

- Develop an orientation checklist.
- Prepare orientation presentations.
- Assemble the necessary materials, such as handbooks, training records and checklists, tests and quizzes, and personal protective equipment.
- Monitor results.

HOW DO YOU DO IT?

Develop a new employee orientation checklist

The checklist will allow you to consistently deliver new employee orientations without the worry of forgetting something. Appendix A presents a sample checklist along with a list of suggested topics.

Develop your presentations for each subject

Effective communication begins with proper presentation techniques. The presentation must convince the employee of the relevance and importance of the material being presented. Appendix B discusses presentation techniques.

Assemble materials

You will need materials for all new employees. These might include:

- Employee handbooks (if available). A company handbook and/or a health and safety handbook can provide valuable reinforcement of your orientation presentations, and the orientation period is an excellent time to distribute them.
- Training record. This is a dated record stating that the individual has successfully completed training in a specific area or topic.
- Tests or quizzes. These can be written or verbal, true/false, or multiple-choice. They will aid you in determining the effectiveness of your presentation. You must take into consideration the literacy and language barriers of each new employee. Don't assume that employees can read or write in their native language.
- Personal protective equipment, including locks and tags if applicable.
- On-the-job training checklist/manual (if applicable). This is a reference that departmental managers, supervisors, and mentors can use to complete and verify on-the-job training. It is also an excellent reinforcement tool for some of the training done during orientation. Examples are given in Appendix C.

Monitor results

Through quizzes, questioning, and observations, verify that each new worker has a firm grasp of knowledge needed to be a safe and productive employee.

APPENDIX A: New Employee Orientation Checklist

The new employee orientation checklist should be your guide for all orientations. You can make it companywide, department-specific, or both. Here is an example of what a checklist might look like.

[Company name]	
ORIENTATION CHECKLIST	
Employee name: _____	Date of hire: _____
Department: _____	Job title: _____
Companywide Subjects (General)	
Subject	Complete (✓)
Company vision statement (distribute and review)	<input type="checkbox"/>
Attendance policy (distribute, review, and sign acknowledgement receipt)	<input type="checkbox"/>
Pay policy	<input type="checkbox"/>
<i>[continue as necessary]</i>	
Companywide Subjects (Health and safety, Health, Environmental)	
Subject	Complete (✓)
Company health and safety policy (distribute and review)	<input type="checkbox"/>
Spill prevention control and countermeasure	<input type="checkbox"/>
Hazard communication	<input type="checkbox"/>
<i>[continue as necessary]</i>	
Departmental Subjects (Health and safety and Health)	
Subject	Complete (✓)
Fork truck operation (video, written test, hands-on training in department)	<input type="checkbox"/>
Lockout/tagout (video, discussion, test)	<input type="checkbox"/>
Baler operations (PowerPoint presentation, on-the-job training)	<input type="checkbox"/>
<i>[continue as necessary]</i>	

Remember, the checklist is a template for making sure that all employees receive the same training. As you begin to develop your checklist, do not take shortcuts. List every subject that you feel necessary to develop a well-informed, safe employee. The checklist (especially the department-specific portion) can also be used for employee transfers or simply for a refresher class.

Listed below are just a few subjects that you will want to consider addressing in your new employee orientation. Add additional subjects that are intrinsic to your facility.

Companywide subjects (general)

- The company (purpose, scope, and mission), past, present, and future
- Expectations
- Employment at will (where applicable)
- Policies and work hours
 - a) Attendance policy (excused/unexcused absences, tardiness, etc.)
 - b) Work hours (time cards, time sheets, starting time, quitting time, breaks, lunch hour, etc.)
 - c) Pay periods and practices (week ending, payday, overtime, etc.)
 - d) Cell phone, e-mail policies
 - e) Disciplinary policy
- Provincial or Federal policies related to
 - a) Disabilities
 - b) Employment Standards
 - c) Human Rights
 - d) Workers' compensation
 - e) Health Insurance
- Benefit packages
 - a) Pay rate
 - b) Health and dental insurance
 - c) Prescription insurance
 - d) Life insurance
 - e) Disability insurance
 - f) Retirement plan
 - g) Profit sharing

- h) Incentive plans
- i) Vacation
- j) Sick days

Companywide subjects (health and safety, health, environmental)

- Health and safety and health policy statement
- Environmental policy statement
- Fire prevention plan
- Emergency action plan
- Recordkeeping and injury reporting
- Hazard reporting
- WHMIS
- Health and safety committee
- Smoking policy
- General yard health and safety
- Safe lifting techniques
- Identifying hazardous and unwanted materials
- Slips, trips, and falls
- Spill prevention control and countermeasure
- Stormwater pollution prevention plan
- Control of air emissions
- Control of energy use
- Housekeeping
- Security

Departmental subjects (health and safety, health, environmental)

- Personal protective equipment (PPE)
- Conveyor operations
- Baler operations
- Shear operations
- Shredder operations
- Furnace operations
- Crane operations

- Fork truck operations
- Skid steer/loader operations
- Fall protection
- Confined space
- Respiratory protection
- Electrical health and safety
- Machine guarding
- Fire protection and flammable storage
- Hearing conservation
- First Aid

APPENDIX B: Presentation Techniques for New Employee Orientation

All the world's a stage, and all the men and women merely players.

William Shakespeare

The very instant you walk into the orientation room, the curtain has opened, and your new employee immediately begins to sense, review, and critique your role as a representative of your company. If you come across as not wanting to be there, for example, or if you project a feeling that the orientation is interfering with your day, the new employee will sense it, and might decide that the company as a whole is uncaring and impersonal. On the other hand, if you truly exude a willingness and happiness to be there, and take the time to show the employee that he or she is the *most* important concern in your life right now, you will start off with a more enthusiastic employee who will sense that accepting employment at your facility was the right thing to do. So *how* you present information to your new employee is extremely important.

Listed below are suggestions to help you deliver a solid performance every time you hold an orientation class.

The stage (orientation room)

You expect undivided attention from new employees, and they expect the same from you. This means that you want a meeting area free from distractions. Here are some things to consider when choosing an orientation room:

- Is the room telephone-free? If not, can the phone volume be turned off?
- Is the room subject to traffic? Are employees constantly coming in to use soda or snack machines? Is the room also an entrance/exit point to the building? If it is, look elsewhere.
- Does the room offer adequate accommodations for audiovisual equipment (screen, DVD/VCR)?
- Is lighting adequate?
- Is the room and seating comfortable?
- Do you (the presenter) have room to move around?

The props (equipment)

If you will be showing a video or PowerPoint presentation, pace the audiovisual elements in such a way that you do not lull your audience to sleep. Consider using some of the following equipment to enhance your presentation:

- Chalkboard, erasable board, or easel with paper: This a great tool for writing down key points or phrases that stay visible for a period of time. Diagrams also can play important roles in your presentation. And taking the time to write on a board shows commitment on your part.

- Damaged protective equipment: Don't discard every shattered pair of health and safety glasses or damaged hard hat you come across. They serve as excellent visual displays of their importance on the job.
- Pieces of scrap: Great for illustrating sharp edges (cuts) or smooth oily surfaces (slips, housekeeping).

Some presenters use models of a human skeleton to illustrate back injuries or other musculoskeletal disorders. Others use model trains and track to illustrate the dangers of walking between cars. It's all up to you.

The performance

Now that you know what you are going to discuss and what approach you are going to use (video, discussion, PowerPoint, etc.), it is time to convey your message in a lively, proactive tone that keeps the new employee interested and engaged. Some points to keep in mind:

- Be prepared. Not only do you have to *be* prepared, you have to *look* prepared. Make sure that all audiovisual equipment is operational before your audience arrives.
- Start on time. This helps set the tone that you are serious about what you are doing.
- Stay focused and committed. This reinforces your intent.
- If need be, break up the orientation over the course of more than one day. Maybe do just three or four hours of classroom time and spend the balance of the day on the job.
- Encourage employee participation. This keeps the orientation interesting and helps you determine the effectiveness of the training.
- Do what you say, say what you do: Make sure that what you teach an employee is what is actually being done on the job. The orientation program can be quickly undermined if the new employee is taught something during orientation only to later find out that it is not done that way anymore.
- Stay with the employee. Don't turn on a video and walk out of the room, only to return to put in the next video.
- Verify orientation. A written test or quiz, or just verbal questioning regarding subjects covered, will indicate whether the employee grasped the information presented, and if and where improvement or repetition is needed.

APPENDIX C: New Employee On-the-Job Training Checklist/Manual

The orientation process continues on the job. It is extremely important to have documentation of progress gained and knowledge acquired in the field. To do this, create an on-the-job training checklist/manual that can be used by the department supervisor or designate as an aid to consistent training.

On the checklist or training record, reference any work instructions, safe job procedures, one-point health and safety lessons, and hazard assessments you might use. If you are not using any of these tools, try to be as specific as possible in your checklist/manual in order to cover all facets of a particular operation. (You also might want to begin developing these tools at this point.) Below is an example of an on-the-job training checklist.

[Company name]			
NEW EMPLOYEE ON-THE-JOB TRAINING CHECKLIST			
Name: _____		Department: <u>Steel yard</u>	
General topics for all employees			
Referenced material	Employee signature	Trainer signature	Date
Location of fire extinguishers			
Housekeeping (WI 2018)			
Inspecting scrap (WI 2003)			
Lifting procedures (SJP 1009)			
Topics for all steel yard employees			
Referenced material	Employee signature	Trainer signature	Date
Picking table operations (SJP 1020)			
Moving rail cars (SJP 1008, 1016; OP SL 3001, 3002)			
Torch cutting (SJP 1006)			
Hazard assessments (CHA 7002, 7003, 7007)			

MODULE 7.0: Progressive Discipline

APPLICABLE STANDARD: N/A

EMPLOYEES AFFECTED: All

WHAT IS IT?

Progressive discipline is a standard policy for disciplining employees in such a way that repeated infractions result in increasingly severe penalties, up to and including termination of employment.

WHY IS IT IMPORTANT?

Having a progressive discipline policy puts teeth into your health and safety rules and policies. A fair and consistently enforced progressive discipline program can be an important defense against charges of harassment or discrimination.

WHAT IS REQUIRED?

- After you have developed health and safety rules and policies, determine how employees will be disciplined for violating a rule.
- Develop a companywide discipline policy. The policy should be *progressive*, meaning that penalties become harsher for repeat offenses.
- Once the discipline policy is completed, introduce it to all employees, including the management team.
- Make the policy part of your new employee orientation.
- Review the policy on a periodic basis to ensure it is still relevant within the operation.

HOW DO YOU DO IT?

For many companies, the discipline policy for health and safety is integrated with a larger personnel conduct policy.

Determine reasonable punishments for rule violations and how many “chances” employees are allowed before they are terminated. The idea is that everyone can have a bad day and forget to follow a health and safety rule, but consistently bad days cannot be tolerated. Many companies use a three-strike rule that consists of:

- written warning
- suspension
- termination.

Some companies include the preliminary step of a verbal warning, but it is

generally recommended that all disciplinary steps be documented.

Appendix A presents a sample progressive discipline policy.

Consistent enforcement can be the greatest challenge to an effective progressive discipline program. It may be easy to take action against an unproductive worker who commits a health and safety infraction, but it can be difficult to take action against a star producer who commits the same infraction.

APPENDIX A: Sample Progressive Discipline Policy

Here is a sample progressive discipline policy from a scrap processing facility.

[COMPANY NAME] EMPLOYEE DISCIPLINE POLICY

Purpose

The purpose of this policy is to provide a clear, well-defined, disciplinary action policy. [Company name] wants employees to know where they stand with regard to their performance and to reduce, as much as possible, the fear of unwarranted termination. It is important that all employees understand this policy and procedure.

Policy

[Company name] is committed to a fair and equitable disciplinary policy. The administration of discipline will be for, but not limited to, noncompliance with company policies, procedures, health and safety rules, and professional standards. Discipline can also be administered for such matters as inefficiency, incompetence, failure to maintain skills, inadequate performance levels, insubordination, failure to follow the lawful orders of a supervisor, misfeasance, malfeasance, or nonfeasance in your assigned position.

This progressive discipline policy lets employees know exactly where they stand and why disciplinary action is being taken, and it gives employees a chance to present their side of the story. The three-tiered approach to discipline distinguishes between minor and more serious infractions. It allows employees an opportunity to learn from mistakes and improve their performance without the fear of unwarranted termination for minor infractions. If you have any questions about this policy, contact your supervisor or a member of the management.

The type and severity of any disciplinary action taken shall be governed by principles of consistent application, prior knowledge of rules and standards, and determination of the facts. Employees subject to disciplinary action, including involuntary termination, may appeal the action to management in writing. All notifications and filings will be in writing and become a part of the employee's file.

Suspensions should be for a minimum of a half-day to a maximum of 30 days. All disciplinary suspensions are without pay. Management will provide a copy of a notice of suspension, in writing, to the employee and the employee's immediate supervisor. A copy will be kept in the employee's file.

Accidents involving property damage, horseplay, or injury to an employee, customer, or third party will be reviewed for possible disciplinary action. Employees not following established policy and procedure may be responsible for reimbursing the company for repairs, responsible for deductibles when insurance is involved, and responsible for replacing equipment entrusted to the care of an employee. All

personal protective equipment issued to an employee must be returned, replaced, or paid for. All horseplay incidents resulting in property damage, personal injury, or other harm to the company may result in disciplinary action.

Procedure

1. All disciplinary warnings will be in writing and will remain in the employee's file. The written warning must contain a statement from the employee being disciplined. If the employee refuses to provide a written statement, the supervisor will enter a statement of the circumstances and sign it. The type and severity of discipline may take into consideration the severity of the infraction, the repeated nature of violations (verbal warnings), prior disciplinary actions (written), the employee's past work record, and the potential of causing injury or damage to the employee, other persons, or property.

2. The first written warning will include a review with the employee's immediate supervisor. The employee must be given the opportunity to respond to the warning in writing. If the employee to be disciplined refuses to provide a written statement or sign the Employee Action Form, the supervisor will attach a Refusal to Sign Form that must be signed by the employee. Depending on the nature of the incident and whether the employee is (1) contract or temporary, (2) on probation, or (3) part-time or full-time:

- A. The employee may be referred to management for termination.
- B. The employee may be suspended without pay for an appropriate period (approval required from management).
- C. The employee may attain Level One disciplinary status (received first written disciplinary warning).
- D. Temporary, seasonal, and probationary employees may be terminated for any reason.

3. The second written warning will include a review with the employee's immediate supervisor and management. The employee must be given the opportunity to respond in writing. If an employee refuses to provide a statement or sign the Employee Action Form, the supervisor will attach a Refusal to Sign Form to be signed by the employee. Depending on the nature of the incident and the employee's status:

- A. The employee may be referred to management for termination.
- B. The employee may be suspended without pay for an appropriate period (approval required from management).
- C. The employee may attain Level Two disciplinary status (received second written disciplinary warning).
- D. Temporary, seasonal, and probationary employees should be terminated at the second level. Only after careful review by management can temporary, seasonal, and probationary employees retain their positions.

4. When an employee is subject to a third disciplinary action after an incident, regardless of status, he or she will be terminated. This action will come from management and only after a careful review of the incident. This action will also be documented including a statement from the employee, and placed in the employee's file. Employees receiving a third warning must be given the opportunity to respond in writing before termination. Management personnel will process employees attaining this level only.

5. All disciplinary action documentation will remain in the employee's file. Employees should have access to their own file and may request copies of all or any part of that file. Any employee terminated for any reason, other than voluntary termination, may appeal the decision through the grievance and appeal procedure.

MODULE 8.0: Health and Safety Committee/Safety Representative

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All employees

WHAT IS IT?

Employee involvement is the creation of an environment in which people have an impact on decisions and actions that affect their jobs. It is a management style and culture that actively encourages employee participation for improving all facets of an operation (quality, production, health and safety, environmental). A great way to develop this culture is to create a health and safety committee or have an employee safety representative. This requirement is found in most Provincial health and safety legislation which outline the specific requirements for establishing an employee safety representative or a health and safety committee. An employee safety representative is a non-management employee who is required to perform specific tasks and represent employees on health and safety issues. A health and safety committee is composed of line employees and management representatives, they are also required to perform specific tasks and are governed by a committees terms of reference document.

The strongest health and safety committees or representatives are those that assist in the design and implementation of health and safety programs, solve problems, and act as a consultant to senior management by identifying problems and recommending solutions.

WHY IS IT IMPORTANT?

Health and safety committees or representatives function as a "consultants/advisors" by assisting in finding solutions to problems that cause workplace accidents, illnesses, and injuries. Fewer accidents, illnesses, and injuries mean lower workers' compensation claims costs and insurance premium rates. Reduced accidents also result in increased productivity. Committees also assist in ensuring that the employer and employees are all doing their part in controlling workplace hazards and are working in compliance with health and safety legislation.

WHAT IS REQUIRED?

- Management support.
- Were your local legislation requires an employee safety representative; a non-management employee is selected by non-management employees to be their safety representative.
- Were your local legislation requires a health and safety committee; a group of

volunteers (management and non-management) willing to demonstrate commitment to attend committee meetings conduct inspections and follow through on assigned tasks must be established.

HOW DO YOU DO IT?

Establish a safety representative

Provincial health and safety legislation should be reference in order to ensure your safety representative meets any legislative requirements. Some areas to consider:

- When is a safety representative required versus a committee?
- What is the role of a safety representative as assigned by your Provincial health and safety legislation?
- The safety representative must be a non-management employees (does not exercise any managerial functions) selected by employees not management.

Form the health and safety committee

Provincial health and safety legislation should be reference in order to ensure your committee meets any legislative requirements. Some areas to consider:

- What is the size and makeup of the committee? (there may be a minimum legislative requirement)
- What is the overall purpose of the committee?
- What is the term of a committee member?
- How often should the committee meet?

If not mandated by your provincial health and safety legislation, the size of your company will usually determine the size of the committee. Ideally, you would like to get volunteers from each department or work group, but never let it exceed 15%–20% of your total work force. Any more strains the effectiveness of the committee. Limit the number of consecutive terms an employee can serve. This gives others a chance to serve and keeps things fresh.

Creating the committee can be done by seeking volunteers. Management may seek management members to volunteer or appoint specific management members that have authority to make decisions. Non-management members (employees the do not exercise any managerial functions) of a committee must be selected by the employees. If required, elections are carried out where there is more non-management members nominated then positions available.

Hold an initial meeting

After your committee is formed, set a date for your first meeting. This might address some or all of the following items:

- Develop a terms of reference to outline the purpose, rules and role of the committee.
- Develop a standard agenda (see Appendix A for a sample agenda) for regularly scheduled meetings. This agenda might include blocks of time for the following tasks:
 - reviewing reports of accidents or near-misses and making any recommendations to reduce or prevent recurrences
 - identifying workplace hazards and making recommendations for eliminating hazards
 - reviewing health and safety/housekeeping inspection audits, with follow-up progress reports
 - subcommittee or project reports
 - new and old business.
- Establish who will be recording the minutes for the meetings.
- Set a schedule of dates (see provincial legislative requirements) to hold meetings and decide on the maximum length of a meeting. Meeting on a monthly basis and limiting the meeting to one hour is fairly common.

Conduct regular meetings

Keep meetings focused and purposeful. Developing and using a standard agenda, such as the one outlined above, keeps meetings focused and prevents them from becoming gripe sessions.

Establish a template for recording the minutes of the meetings (see Appendix B for a sample template) and who will record the minutes of the meetings. (refer to your provincial legislative requirements)

The committee should establish co-chairs (one management and one non-management member) to take turns chairing the meetings.

Conduct regular health and safety inspections

Provincial health and safety legislation in many provinces also specifies requirement for committees or safety representatives to carry out regular workplace inspections. The purpose of the inspections should be seen as a “quality control” role since what the committee or safety representative is inspecting is that everyone in the organization is doing their part in maintaining a healthy and safe workplace. If an inspection identifies health and safety hazards or issues, then the question that should be posed is “what internal process failed or is required that should have been in place?”

Committees or safety representatives must establish a workplace inspection schedule that meets the legislative requirements. Where committee inspections are not legislated it is recommended that a management and non-management members of committees team up to conduct monthly workplace health and safety inspections (see *Module 15 Health and Safety Inspections* for sample checklists that may be adopted for use by your committee or safety representative).

Results of inspections are reviewed at the committee meetings in order to discuss the findings and track the completion and follow-up of any items. A standard inspection checklist should be developed by the committee in order to document the inspection and ensure consistency while conducting the inspections.

The committee or safety representative workplace inspection process should include how any findings will be reported internally to the employer. In addition, it should also include a follow-up process for carrying out required corrective actions when hazards or health and safety items needing attention are identified.

APPENDIX A: Sample Agenda

Date	
Time	
Location	

1	Call to order
2	Review and adoption of the agenda
3	Review and adoption of the previous minutes
4	Review of open Accident/Incident/Hazard Reports
5	Review of open Workplace Physical Condition Inspection Items
6	Review of open Formal Committee Recommendations
7	Old Business items a) b) c) d)
8	New Business Items a) b) c) d)
9	Next Meeting Date
10	Adjournment

APPENDIX B: Sample Minutes Template

Date:		Time:	
Location:			
Attendees:		Guest(s):	
Regrets:			
Note taker:			
Minutes			

1) Meeting Called to order at:	
---------------------------------------	--

2) Adoption of the Agenda:	
-----------------------------------	--

3) Review and Adoption of Previous Minutes			
•			
Action Items	Responsible:	Status:	
•			

4) Open Accident/Incident/Hazard Reports			
•			
Action Items	Responsible:	Status:	
•			

5) Open Workplace Physical Condition Inspection Items		
•		
Action Items	Responsible:	Status:
•		

6) Open Formal Committee Recommendations		
•		
Action Items	Responsible:	Status:
•		

7) Old Business Items		
•		
Action Items	Responsible:	Status:
•		

8) New Business Items		
•		
Action Items	Responsible:	Status:
•		

9) Next Meeting Date:

10) Meeting Adjourned at:

MODULE 9.0: Auditing

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All

WHAT IS IT?

Auditing is a systematic and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

Audit criteria is selected on the basis of what standard you wish to measure your health and safety program against. You may wish to conduct a legal compliance audit and therefore the audit criteria will be your applicable provincial health and safety legislation. If you wish to audit your health and safety program against health and safety management system criteria, then you would select a standard such as the CSA Z1000-06 Occupational Health and Safety Management.

WHY IS IT IMPORTANT?

In order to ensure you are complying with your own health and safety program requirements and health and safety legislation it is important to conduct periodic audits using specific audit criteria. Auditing also helps to measure your program, and identify both your ongoing level of compliance and opportunities for improvement.

WHAT IS REQUIRED?

- Your organization should select a recognized audit standard. (many provincial health and safety government agencies have health and safety audit standards) The CSA Z1000-06 Occupational Health and Safety Management Standard may also be used as the criteria by which to audit your health and safety program.
- If you will be conducting a legislative compliance audit then your audit criteria will be based on you provincial legislative requirements.
- Determine if your audits will be conducted internally or by external auditors and establish an audit schedule.
- Ensure that employees that will be conducting the audits are trained.
- Establish a documented process for how the audits will be carried out.

HOW DO YOU DO IT?

- Audits should be carried out by trained auditors using standard audit protocol. Generally audits will require the collection and evaluation of evidence by carrying out:
 - document review
 - records review
 - observation
 - interviews
- The evidence is collected and evaluated against the audit criteria. The evaluation is reported as audit findings.
- Audit findings would include the current activity which could represent the level of compliance with the specific audit criteria or opportunities for improvement which formulate recommendations for improvement.
- The auditor(s) should create a formal report of the audit findings and a presentation.
- The recommendations from an audit are to be reviewed by the management team and the health and safety committee or representative.
- An action plan is then developed to address the audit recommendations with assigned responsibilities and completion target dates.
- The action plan is tracked for completion.

WHERE CAN I GET MORE INFORMATION?

- CARI
- Provincial health and safety government agencies

MODULE 10.0: Management Review

APPLICABLE STANDARD: CSA Z1000-06 Occupational Health and Safety Management

EMPLOYEES AFFECTED: Management Team

WHAT IS IT?

The management review is a review of the organizations health and safety program by the management team to identify the need for change and the actions that are required to undertake changes, correct any deficiencies, and ensure continual improvement.

WHY IS IT IMPORTANT?

The management review is important to ensure ongoing management involvement and support for the health and safety program. The management review is the basis for ensuring the continual improvement of the health and safety program.

WHAT IS REQUIRED?

Then management team should meet at least annually to review the status of the health and safety program.

HOW DO YOU DO IT?

The management review meeting should include a review of:

- the Health and Safety Policy statement;
- the results of hazard identification and assessments;
- the results of audits;
- the results investigation of accidents/incidents;
- the results of inspections;
- the status of actions from previous management reviews;
- corrective and preventive actions;
- recommendations for improvement from the health and safety committee or employees;
- changes in health and safety legal requirements

The review meeting should have an agenda and minutes.

A management review will result in actions for improvement which may lead to changes to the health and safety program; including the organization's standards,

procedures, practices, and allocation of the human and financial resources.

An action plan is then developed to address the actions for improvement with assigned responsibilities and completion target dates.

WHERE CAN I GET MORE INFORMATION?

- CARI
- CSA Z1000-06 Occupational Health and Safety Management

MODULE 11.0: Recordkeeping/Documentation

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: Administration, management

WHAT IS IT?

Records and documents demonstrate that health and safety policies are in place, and that employees are adequately trained.

WHY IS IT IMPORTANT?

Records and documents prove to regulatory agencies and your insurance carrier that your health and safety program exists. It is your backup for regulatory audits, and it also provides a means to keep track of workplace injuries from year to year. In short:

IF YOU DIDN'T DOCUMENT IT, IT DIDN'T HAPPEN

WHAT IS REQUIRED?

- Document workplace injuries and illnesses.
- Document any steps required for compliance with health and safety legislation (e.g., workplace assessment and employee training).
- Document all employee training to show date of training, who attended, and what topic was covered.
- Document all health and safety audits, including when they occurred, what hazards were identified, and the plan to correct them.
- Keep track of minutes of all health and safety committee meetings to ensure the program stays on track.

HOW DO YOU DO IT?

Document injuries

Document all injuries and illnesses and the results of the investigations using a injury/illness investigation report. This report will also record the causes and corrective actions that were carried out to prevent future injury/illness. All the investigation reports should be kept in secure file.

Document training

Whether you have weekly tool box meetings or monthly health and safety

meetings, you need to document that the training took place. Many companies will ask employees to sign a sheet of paper to show they attended a session. A very simple way to save all of this information is to use a three-ring binder. Create a tab for each training session, hole-punch the training document and sign-in sheet, and add them to the binder. Some companies will create a basic training matrix on a spreadsheet to see at a glance which employees have had what training.

Documenting the training of new employees is also important. You may want to use a checklist assigned to each new employee to ensure he or she receives all the training necessary.

Document health and safety inspections

As part of your health and safety program, you need to complete periodic health and safety audits (self-inspections). These audits need to be documented. Once again, the three-ring binder technique works well for this. Create a tab for each inspection and add the completed inspection form. After problem areas from the inspection are addressed, document that within the binder.

Document disciplinary action

Keep track of all employee warnings, write-ups, and suspensions. Remember: even a verbal warning needs to be documented. For more on discipline programs, see the modules on "Health and safety Rules" and "Progressive Discipline."

Keep an eye on compensation claims

The compensation board provides you with cost statements claims you have filed. This information provides a record of compensation claims and can help you monitor the status of claims and what they cost. It is great way to see where losses are occurring and how to prevent them.

Keep score

Managing health and safety is much like managing production and quality. You need to measure and monitor results. Keeping good documentation helps you look back to see where you came from so you can plan for the future. Keep injury/illness statistics and compensation claim information to see if you are getting better, staying the same, or getting worse. Let employees know the results. Let them play a role in making the operation safer.

WHERE CAN I GET MORE INFORMATION?

- CARI
- CSA Z1000-06 Occupational Health and Safety Management

MODULE 12.0: Accident/Incident Investigation and Reporting

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All employees

WHAT IS IT?

Accident/Incident investigation is the process of determining the root causes of accidents, on-the-job injuries, property damage, and incidents (close calls) in order to prevent them from occurring again.

WHY IS IT IMPORTANT?

Accident/Incident investigation will lead you to the real cause of why something happened, and armed with that knowledge, you can take affirmative steps to prevent future accidents from occurring.

WHAT IS REQUIRED?

- Develop an accident/Incident investigation process that focuses on:
 - fact finding, not fault finding
 - determining the root causes of why the event occurred
 - making changes so the event does not happen again.
- Set a policy that accidents and incidents (large and small) will be investigated with equal vigor.
- Provide training and tools to staff conducting accident/incident investigations.
- Audit completed investigations to ensure they are being completed on a timely basis with an adequate level of detail.

HOW DO YOU DO IT?

Workplace accidents/incidents should be investigated as soon as possible after they occur. The goals of a timely and thorough accident investigation should be to:

- determine the cause of the accident
- prevent the accident from happening again
- improve health and health and safety conditions in the workplace
- determine whether a violation of provincial health and safety laws contributed to the accident/incident

- determine company or individual liability in case of future legal action
- determine the need for repairs or replacement of damaged items
- determine the need for additional education and training for employees.

A thorough and complete accident/incident investigation involves several steps, specifically:

- background investigation
- site investigation
- interviews
- analysis and reporting.

The following outline discusses these steps in more detail.

See Appendix A for a sample Accident/Incident Investigation Report

Background investigation

- Review the employment and injury records of any injured employee(s) and/or others whose actions contributed to the accident/incident.
- Review reports of any injuries and/or damage to equipment, machines, building, or property.
- Compile a list of witnesses to the accident/incident.
- Gather information about normal conditions and/or operations of the area. Information would include maps, floor plans, wiring diagrams, and any other piping or architectural drawings or operational guidelines.
- Meet with supervisors and other employees responsible for the affected area and employees of the affected area to outline the purpose and goals of the investigation. Ensure that there is a basic understanding of the materials, equipment, operation, or process involved.

Site investigation

- Arrive at the scene of the accident/incident as soon as possible after it occurred.
- Restrict the accident scene to authorized persons during the site investigation.
- Ensure that movable evidence is secured to prevent tampering or other changes.
- Determine what physical changes may have occurred following the accident/incident. Changes could be attributed to clean-up, weather, maintenance, and normal usage.
- Tour the entire area and record pertinent initial perceptions of the status and condition of building, grounds, equipment, lighting, and ventilation.
- Sketch or draw parts of the accident/incident scene where equipment or machinery involved in the accident/incident is located or where actions that

contributed to the accident/incident occurred. Use the following guidelines when sketching or drawing an accident scene:

- Use squared (graph) paper. If distance or size is important determine the value for each square and note this at the bottom of each sketch.
- Orient each sketch with an arrow pointing north.
- Label all objects.
- Use arrows to indicate paths of travel of individuals and/or vehicles.
- Indicate the distance of movable objects from two fixed locations.
- Note the location of witnesses present at the time of the accident.
- Take photographs of the overall scene, damaged areas, and pertinent machinery and/or equipment. Photographs should be made before any adjustments occur to the scene of the accident/incident.
 - Prior to taking photographs, determine if the area has been altered. If items have been moved or changed, do not move them back for photographs. Photograph items as found, yet document the change and the individual responsible or knowledgeable of the change.
 - For close-ups, use reference items such as a ruler or level measurer to indicate size or slope of the items photographed. For each close-up, photograph the same item from a distance to provide a reference. Photograph the area where the injured worker(s) were found, using reference marks to indicate individuals' placement.

Interviews

- Prepare a list of witnesses and other individuals to be interviewed.
- When possible, do not allow more than 24 hours to elapse before conducting interviews.
- Conduct interviews in a private setting to avoid interruptions and distractions.
- Prepare a list of questions in advance of any interview. Use questions that require narrative answers. Avoid questions that suggest an expected answer (Example: "Isn't it true that the injured employee was running?") or that can be answered with either "yes" or "no." Questions should be structured from the following six key elements: Who? What? Where? When? How? Why?
 - *Who* questions identify all parties involved.
 - *What* questions identify pertinent actions, events, and physical objects.
 - *Where* questions locate participants, witnesses, and key objects involved in the accident.
 - *When* questions determine the time of the accident and establish relationships between pairs of activities or events.
 - *How* questions provide information on the interaction and relationships

among participants, equipment, and the events leading up to, during, and after the accident.

- *Why* questions determine unsafe acts or hazardous conditions.
- Before starting the interview, advise the person to be interviewed that the purpose of the session is to determine the cause of the accident/incident and to prevent any future occurrence.
- Start the interview by asking the individual to describe what happened. Do not interrupt with questions.
- After the individual has given his or her initial statement, ask the prepared questions and any additional questions prompted by the individual's statement.
- Record the individual's statement, the questions asked, and the answers received in the order that they occur. Let the individual talk, but not ramble. Interrupt when necessary to turn the conversation back to the subject at hand.
- Close the interview when all questions have been answered and when the individual indicates no additional information can be provided. Encourage the individual to contact you if other pertinent information comes to mind. Immediately after the interview, review the individual's statement and answers and record your impressions and judgments.

Analysis and reporting

After all fact-finding efforts are complete, analyze the data to determine all causes of the accident/incident. Then prepare a comprehensive report outlining the identified causes and describing corrective measures to prevent similar future accidents/incidents. To best understand why an accident/incident occurred and to plan for preventive actions, it is important to realize that most accidents/incidents have more than one cause. It is important to realize that an accident/incident may be the result of the interaction of seemingly unrelated events.

Causes

The cause of an accident/incident is any behavior, condition, act, or omission without which the accident may not have happened, or the severity of the injuries would have been less. Causes can be characterized as direct, indirect, or contributing.

- *Direct causes* are acts or omissions that directly relate to the accident/incident. These could include workers or other individuals who:
 - operate equipment in an unsafe manner or operate equipment known to have health and safety defects or deficiencies
 - do not follow required or necessary health and safety precautions or procedures
 - fail to correct known damage to or faulty operations of equipment, machinery, or vehicles.
- *Indirect causes* are conditions that directly contribute to the occurrence of a

direct cause. These causes could include:

- defective or unusual conditions of equipment, machinery, vehicles, buildings, or grounds
- defective or unusual conditions of workers or other individuals, such as intoxication, physical defects or limitations, or psychological defects or limitations
- hazardous or unusual conditions of weather.
- *Contributing causes* are conditions, programs, acts, or omissions that are not directly related to the accident/incident but did contribute to the occurrence or existence of a direct or indirect cause. These causes could include lack of or inadequate:
 - health and safety program
 - training programs
 - preventive maintenance programs
 - corrective maintenance programs
 - supervision
 - enforcement
 - design of equipment, machinery, vehicles, or facilities
 - advisory or warning communication, labels, or signs.

Analysis

- *Collect and correlate data.* The following are examples of materials that can be used to ascertain all causes related to the accident/incident. These materials should be collected and organized to allow investigators to review all information at one time:
 - summary of employment and injury records of pertinent employees
 - summary of orientation and training records for pertinent employees
 - summary of normal conditions and/or operation of the pertinent area
 - description of usual and safe operations or use of materials, equipment, facilities, operations, or processes involved
 - summary of inspections of materials, equipment, and facilities involved
 - summary of witness statements that includes an outline of areas of agreement and disagreement between statements
 - summary of pertinent records of preventive maintenance or repair
 - written company policies or directives that pertain to the materials, equipment, facilities, operations, or processes involved.
- *Review data and pose hypothetical causes.* The investigator should review all pertinent data. After the initial review, the investigator should outline potential direct, indirect, and contributing causes. It is important that all potential causes

be listed and that the investigator not draw preliminary conclusions as to the probability that a potential cause was or was not related to the incident. It may be helpful to have a second individual conduct an independent review of the pertinent data to list all of the potential causes.

- *Test potential causes.* Review again the pertinent data looking for specific data that affirm or reject each potential cause. Connect related direct, indirect, and contributing causes.

Reporting

A written report should be generated that contains the following sections:

- *Statement of the problem.* This section should include:
 - a review of the accident/incident
 - a summary of injuries, lost time, and equipment and/or property damage.
- *Review of the data.* This section should include:
 - a summary of witness statements
 - a summary of relevant findings concerning the accident and work history of affected employees and the operation of machinery or equipment
 - a storyboard with photographs or sketches
 - an overview of existing, written company policies or directives.
- *Causes.* This section should list the direct, indirect, and contributing causes that have been affirmed by the data. A reference should be made to the data that support each cause.
- *Recommendations.* These should be based directly on each of the noted causes. These recommendations could include the following:
 - more or improved training for employees
 - new company policies or directives, or better clarification or dissemination of existing ones
 - improved communication between employees, supervisors, and management
 - design or operation changes or improvements to machines, equipment, or processes
 - different or improved health and safety equipment
 - different or improved protection from natural phenomena or disasters
 - different or improved systems to account for possible physical, physiological, or psychological limitations of employees, customers, or others.

Reporting of Serious/Critical Injuries and Fatalities

- Provincial health and safety legislation generally requires immediate reporting of work related serious or critical injuries and fatalities to the health and safety enforcement agency.
- Your accident investigation process must include how your provincial legal reporting obligation will be complied with and by whom.
- In addition to immediate reporting, your local provincial health and safety legislation may also require that you submit an investigation report of the accident. It is recommended that any reports submitted to the enforcement agency be review by legal council prior to submission.

WHERE CAN I GET MORE INFORMATION?

- Provincial health and safety government agency

Appendix A: Sample Accident/Incident Investigation Report

(This form must be completed within 24 hrs)

Date of the investigation _____ Type of report : Preliminary
(d-m-y) Final

Location/Branch Employee Reports To: _____

Employee Name : _____ Employee # : _____

Date of Hire: _____

Job Title : _____ Sex : M F

Date of Birth: _____ Project Name: _____

Worksite Location: _____ Department : _____

Supervisor: _____

Length Of Time in Position : _____ Employment Status: Full Time:
Part Time:
Temp.:

Type of occurrence : (check the appropriate boxes)

Lost Time Injury <input type="checkbox"/>	First Aid Only <input type="checkbox"/>	Vehicle <input type="checkbox"/>	Workplace Harassment <input type="checkbox"/>
Medical Aid Only <input type="checkbox"/>	Incident(near miss) <input type="checkbox"/>	Property Damage <input type="checkbox"/>	Environmental Leak/Spill <input type="checkbox"/>
Other (Specify) <input type="checkbox"/>	Serious/Critical Injury <input type="checkbox"/>	Chemical Emission <input type="checkbox"/>	Emergency Evacuation <input type="checkbox"/>
		Workplace Violence <input type="checkbox"/>	Other (Specify) <input type="checkbox"/>

Date and time of the event : _____ (d-m-y) _____ (hour.min) (am/pm)

Date and time the event was reported : _____ (d-m-y) _____ (hour.min) (am/pm)

Location of event: _____

Weather conditions at time of occurrence (if applicable): _____

Was the employee trained for this type of work? _____ (1=YES 2=NO 3=N/A)

If so, since when? _____ (d-m-y)

ENTER : (1= NO 2=YES 3=N/A 4=Unknown)

Was employee experienced in work operation? _____

Was all the safety equipment used? _____

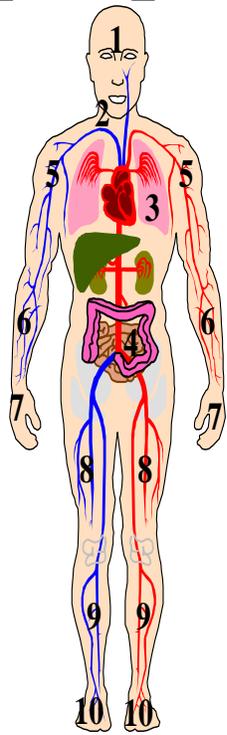
Did the equipment malfunction? _____

Were the established safe work standards followed appropriately? _____

Was the accident site visited : _____ (1= NO 2= YES)

Brief description of property damage and estimated cost : (if any)

Detailed Description of What Happened? (leading up to the event, at the time of the event and after) :

Side of body injured: <input type="checkbox"/> Left <input type="checkbox"/> Right		Nature of injury:	
<input type="checkbox"/> Front <input type="checkbox"/> Back	Body part injured: #: ____ 1. Head (vision, hearing, speech) 2. Neck 3. Upper back, chest, abdomen 4. Lower back, lower abdomen 5. Shoulder or upper arm 6. Elbow or Forearm 7. Wrist or hand 8. Hip or thigh 9. Knee or lower Leg 10. Ankle or foot 11. Systemic or internal organ 12. Other: _____	<input type="checkbox"/> Cut <input type="checkbox"/> Concussion <input type="checkbox"/> Heat Burn <input type="checkbox"/> Other <input type="checkbox"/> Scratch <input type="checkbox"/> Dislocation <input type="checkbox"/> Chemical Burn _____ <input type="checkbox"/> Bruise <input type="checkbox"/> Sprain <input type="checkbox"/> Strain <input type="checkbox"/> Fracture <input type="checkbox"/> Electrical Burn <input type="checkbox"/> Eye	
		Type of injury: <input type="checkbox"/> Struck Against <input type="checkbox"/> Contact with chemicals <input type="checkbox"/> Slip <input type="checkbox"/> Struck By <input type="checkbox"/> Repetitive Body Movement <input type="checkbox"/> Exposure <input type="checkbox"/> Fall From Above <input type="checkbox"/> Fall From the Same Level <input type="checkbox"/> Caught Between <input type="checkbox"/> Caught In <input type="checkbox"/> Overexertion/Strain <input type="checkbox"/> Other: <input type="checkbox"/> Caught Under <input type="checkbox"/> Contact with electrical current _____	
		Body position: <input type="checkbox"/> Pulling <input type="checkbox"/> Pushing <input type="checkbox"/> Twisting <input type="checkbox"/> Bending Sideways <input type="checkbox"/> Stooping <input type="checkbox"/> Carrying <input type="checkbox"/> Lifting <input type="checkbox"/> Bending Forward <input type="checkbox"/> Crouching <input type="checkbox"/> Reaching <input type="checkbox"/> Standing <input type="checkbox"/> Other: _____	

IMMEDIATE (DIRECT) CAUSES OF ACCIDENT/INCIDENT:(CHECK ALL THAT APPLY)

Substandard Acts

Substandard Conditions

<input type="checkbox"/> failure to warn	<input type="checkbox"/> inadequate guards/barriers
<input type="checkbox"/> failure to obey rules	<input type="checkbox"/> inadequate or improper PPE
<input type="checkbox"/> failure to follow procedures	<input type="checkbox"/> defective tools/equipment/materials
<input type="checkbox"/> removing safety devices	<input type="checkbox"/> congestion
<input type="checkbox"/> improper lifting	<input type="checkbox"/> inadequate warning system
<input type="checkbox"/> failure to use PPE	<input type="checkbox"/> poor housekeeping/disorder
<input type="checkbox"/> servicing equipment in operation	<input type="checkbox"/> excessive exposures
<input type="checkbox"/> operating equipment without authority	<input type="checkbox"/> inadequate or excess illumination
<input type="checkbox"/> failure to secure	<input type="checkbox"/> fire & explosion hazard

<input type="checkbox"/> operating at improper speed	<input type="checkbox"/> noise exposure
<input type="checkbox"/> making safety devices inoperative	<input type="checkbox"/> temperature extremes
<input type="checkbox"/> using defective equipment	<input type="checkbox"/> hazardous environmental conditions
<input type="checkbox"/> Improper loading	<input type="checkbox"/> defective or improper chairs/furniture
<input type="checkbox"/> improper placement	<input type="checkbox"/> poor ergonomics
<input type="checkbox"/> improper position for task	<input type="checkbox"/> inadequate ventilation
<input type="checkbox"/> other : Specify:	

Explanation of each selected immediate (direct) cause:

BASIC (ROOT) CAUSE(S) OF THE ACCIDENT/INCIDENT : (CHECK ALL THAT APPLY)

Personal Factors

Job Factors

<input type="checkbox"/> lack of knowledge	<input type="checkbox"/> inadequate leadership and/or supervision
<input type="checkbox"/> lack of skill	<input type="checkbox"/> inadequate engineering
<input type="checkbox"/> stress	<input type="checkbox"/> inadequate purchasing
<input type="checkbox"/> other – Specify:	<input type="checkbox"/> inadequate maintenance
	<input type="checkbox"/> inadequate tools and equipment
	<input type="checkbox"/> inadequate work standards
	<input type="checkbox"/> wear and tear
	<input type="checkbox"/> abuse or misuse

Explanation of each selected basic (root) cause:

CORRECTIVE ACTION TASKS

Recommended Corrective Actions	Person(s) Responsible	Target Date	Status
1			
2			
3			
4			
5			
6			
7			
8			
9			

Names and addresses of witnesses and/or third parties: (ensure Witness Statement Form completed)

Investigation Completed By:

Name : _____ Tel.: () - _____ E-MAIL : _____
Date: _____

Other people present during the investigation :

Name : _____ Titles : _____

Distribution: Next Level of Management, Health and Safety Coordinator

MODULE 13.0: Health and Safety Rules

APPLICABLE STANDARD: N/A

EMPLOYEES AFFECTED: All

WHAT IS IT?

Health and safety rules outline the expected “do’s and don’ts” regarding health and safety within the operation.

WHY IS IT IMPORTANT?

Establishing health and safety rules within the organization is one of the most fundamental steps a company can take when developing a health and safety program. Health and safety rules set expectations for all employees, from the owner to the next employee hired. Without documented health and safety rules, it becomes impossible to consistently enforce company directives and ensure every employee is treated fairly.

WHAT IS REQUIRED?

- Develop a list of health and safety rules that outline safe and unsafe working behaviors for all employees.
- Introduce the health and safety rules to all employees, including the management team.
- Make the health and safety rules part of your new employee orientation.
- Once the health and safety rules are known by all employees, enforce them consistently across the entire organization.
- Review the health and safety rules on a periodic basis to ensure they are still relevant within your operation.

HOW DO YOU DO IT?

Start with a list of safe behaviors that you want to see within your organization and a list of unsafe behaviors that you don’t want to see. Your list of rules will grow over time as you develop safe working procedures for each process.

Most lists of health and safety rules address the following required actions:

- use of personal protective equipment
- use of proper clothing
- use of lockout/tagout before servicing or entering equipment
- reporting of injuries.

Prohibitions against unsafe behaviors typically include these:

- no removing machine guards without authorization
- no riding of conveyor systems
- no unauthorized use of equipment
- no fighting or horseplay.

Appendix A presents a sample set of health and safety rules.

Once your list is complete, share it with employees. Many companies will have a kickoff meeting to introduce the rules and ensure that all employees are made aware of the rules at the same time.

Once the rules are in place, the toughest challenge begins: enforcing them. Rules that are not consistently enforced are not rules at all. To effectively enforce work rules, please refer to the "Progressive Discipline" module 7.0.

As part of good health and safety management, the list of health and safety rules should be reviewed regularly to make sure that they are still relevant within the organization.

APPENDIX A: Sample List of Health and Safety Rules

Here is a sample list of rules from a scrap processing company.

[COMPANY NAME] HEALTH AND SAFETY RULES

Your health and safety is the constant concern of this company. Every precaution has been taken to provide a safe workplace. [Name or title of the person in charge of health and safety] makes regular inspections and holds regular health and safety meetings. [He or she] also meets with management to plan and implement further improvements in our health and safety program.

Common sense and personal interest in health and safety are still the greatest guarantees of your health and safety at work, on the road, and at home. We take your health and safety seriously, and any willful or habitual violation of health and safety rules will be considered cause for dismissal. [Company name] is sincerely concerned for the health and well-being of each member of the team.

The cooperation of every employee is necessary to make this company a safe place in which to work. Help yourself and others by reporting unsafe conditions or hazards immediately to your supervisor or to a member of the health and safety committee. Give earnest consideration to the rules of health and safety presented to you by poster signs, discussions with your supervisor, posted department rules, and regulations published in the health and safety booklet. Begin right by always thinking of health and safety as you perform your job, or as you learn a new one.

Accident reporting

Any injury at work—no matter how small—must be reported immediately to your supervisor and receive first aid attention. Serious conditions often arise from small injuries if they are not cared for at once.

Specific health and safety rules and guidelines

To ensure your health and safety, and that of your co-workers, please observe and obey the following rules and guidelines:

- Observe and practice the health and safety procedures established for the job.
- In case of sickness or injury, no matter how slight, report at once to your supervisor. In no case should an employee treat his own or someone else's injuries or attempt to remove foreign particles from the eye.
- In case of injury resulting in possible fracture to legs, back, or neck, or any accident resulting in an unconscious condition, or a severe head injury, the employee is not to be moved until medical attention has been given by authorized personnel.
- Do not wear loose clothing or jewelry around machinery. It may catch on moving equipment and cause a serious injury.

- Never distract the attention of another employee, as you might cause him or her to be injured. If it is necessary to get the attention of another employee, wait until it can be done safely.
- Where required, you must wear protective equipment, such as goggles, health and safety glasses, masks, gloves, etc.
- Health and safety equipment such as restraints, pull-backs, and two-hand devices are designed for your protection. Be sure such equipment is adjusted for you.
- Pile materials, skids, bins, boxes, or other equipment so as not to block aisles, exits, firefighting equipment, electric lighting or power panels, valves, etc. FIRE DOORS AND AISLES MUST BE KEPT CLEAR.
- Keep your work area clean.
- Use compressed air only for the job for which it is intended. Do not clean your clothes with it.
- Observe smoking regulations.
- Shut down your machine before cleaning, repairing, or leaving.
- Tow motors and lift trucks will be operated only by authorized personnel. Walk-type lift trucks will not be ridden, and no one but the operator is permitted to ride the tow motors. Do not exceed a speed that is safe for existing conditions.
- Running and horseplay are strictly forbidden.
- Do not block access to fire extinguishers.
- Do not tamper with electric controls or switches.
- Do not operate machines or equipment until you have been properly instructed and authorized to do so by your supervisor.
- Do not engage in such other practices as may be inconsistent with ordinary and reasonable commonsense health and safety rules.
- Report any UNSAFE condition or acts to your supervisor.
- HELP TO PREVENT ACCIDENTS.
- Use designated passages when moving from one place to another; never take hazardous shortcuts.
- Lift properly—use your legs, not your back. For heavier loads, ask for assistance.
- Do not adjust, clean, or oil moving machinery.
- Keep machine guards in their intended place.
- Do not throw objects.
- Clean up spilled liquid, oil, or grease immediately.
- Wear hard-soled shoes and appropriate clothing. Shorts or mini-dresses are not permitted.
- Place trash in proper containers, not in cans provided for cigarette butts.

MODULE 14.0: Health and Safety Notice Boards & Postings

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

A health and safety notice board is a board dedicated for the communication of important health and safety related information with all employees.

WHY IS IT IMPORTANT?

Having a health and safety notice board is important in order to have one central location to communicate health and safety information to all employees in the organization. The requirement to post certain items in the workplace is also prescribed by health and safety legislation in all Canadian provinces.

WHAT IS REQUIRED?

- You should review your local provincial health and safety legislation in order to have a good understanding of the items that must be posted in a conspicuous location in your workplace.
- Develop a standard and procedure that meets the needs of your organization and the requirements of your health and safety legislation.
- Your standard and procedure will include the items that will be posted on your board and who will be responsible for maintaining the board.
- Advise all employees of the existence and purpose of the board.

HOW DO YOU DO IT?

Develop a Health and Safety Notice Board & Postings Standard and Procedure

The standard and procedure should meet the needs of your organization and comply with the prescribed first aid legislated requirements. Some of the points to include in your standard and procedure include the following:

1. Where the health and safety notice board will be located (it must be a location accessible to all employees)
2. Who will be responsible for maintaining the required posting on the board.

3. Some of the items that should be posted include:

1. A large sign with the text "Health and Safety Notice Board"
2. A copy of the current "Health and Safety Policy" statement.
3. A copy of the current list of Approved MSDS's and the WHMIS Regulation.
4. Emergency Phone Numbers Listing which include:
 - 911 or local emergency response number
 - Local Fire Department
 - Local Police
 - Local Ambulance
 - Local Poison Control Centre
 - Local Utilities Emergency – Gas, Water, Hydro
 - Internal Emergency Contacts
5. A copy of the local First Aid Regulation.
6. A copy of the current first aider certificates and contact numbers for the location designated first aider(s).
7. A listing of the designated fire warden(s) names and contact number.
8. A listing of the names and contact numbers for the current joint health and safety committee team members or health and safety representative.
9. A copy of the most recent Joint Health and Safety Committee meeting minutes.
10. A copy of the most recent Monthly Health and Safety Inspection Report.
11. A copy of the General Health and Safety Rules.
12. A copy of the most recent "Occupational Health and Safety Act/Code".
13. A copy of any recent enforcement compliance orders by a Health and Safety Inspector/Officer.
14. A copy of any recent health and safety related workplace testing reports.
15. A copy of the Ontario WSIB form 82 "In Case of Injury at Work" poster. (Ontario only)
16. Ontario Ministry of Labour "What You Should Know" employment standards poster.(Ontario only)
17. Any other Health and Safety Related materials or reports as may be issued by the organization or prescribed by your provincial health and safety agency.

MODULE 15.0: Health and Safety Inspections

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All employees

WHAT IS IT?

A health and safety inspection is a structured walk-through of your facility to identify hazards, verify compliance with standards, and evaluate health and safety performance.

WHY IS IT IMPORTANT?

Just as inspections of the manufacturing process are important for quality control, health and safety inspections are vital for loss control. Also, promptly correcting substandard or hazardous conditions discovered during an inspection communicates that management is serious about preventing accidents.

WHAT IS REQUIRED?

- Establish a process for inspections.
- Develop an inspection checklist as an aid.
- Be committed to timely correction of non-conformances found during the inspection process.

HOW DO YOU DO IT?

Set up the inspection process

Determine what needs to be inspected, what aspects of each item need to be examined, and the frequency of inspections. You can begin by answering the following five questions:

1. *Are there required inspections?* Determine which inspections of operations, procedures, or pieces of equipment are mandated by health and safety regulations or by manufacturer recommendations. Example of inspections required on a regular basis by regulations include, but are not limited to:

- Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms
- Portable Fire Extinguishers: visual inspection monthly, maintenance inspection yearly

2. *What is the loss severity potential of the problem?* A damaged or removed machine guard has the potential to cause much greater loss to employees, equipment, etc., than does a defective handle on a shovel. Therefore you may want to inspect machine guards more frequently than shovels.

3. *What is the potential for injury to the employees?* If an item or piece of equipment were to fail, how many employees would be endangered? How frequently is the danger posed?

4. *How quickly can an item or part become hazardous?* Usually, equipment and tools that get heavy use become damaged or defective or just wear out faster than those that are rarely used.

5. *What do previous records show?* Production and maintenance records and/or incident investigation reports can provide information on failures and injuries due to equipment or processes.

Decide who will do the inspection

Depending on the size and structure of your organization, an inspection team might include the department supervisor, a supervisor from another department, or even a group of supervisors. You might decide to have the inspections performed by members of the health and safety committee.

Develop an inspection checklist and perform the inspection

Once you have examined all facets (equipment, critical parts and components, infrastructure) of the operation, you should develop a checklist to use while conducting the inspection. Remember that the checklist is strictly an aid to the inspection process, serving as a reminder of what to look for and a means to document what has already been covered. The completion of the inspection process is the actual correction of non-conformances found during the inspection.

Make your checklist simple to follow and easy to understand. The items that need correcting should be easy to spot. Some examples of checklists appear in Appendix A.

Your checklist can vary in length from a few items to hundreds. Longer checklists generally are keyed to legislated standards. When developing your checklist, you might want to break it down into the following general categories:

- *Machinery and equipment:* This should include but not be limited to general and point-of-operation safeguards and proper use of tools.
- *Material handling and storage:* For example, inspect the condition of equipment, storage areas, and cylinder transportation.
- *Hand and portable tools:* Be sure that the proper tools are being used, and check the condition and care of tools being used.
- *Fire protection:* Check location and accessibility along with records of inspections.

- *Electrical:* Include extension cords, outlet box covers, GFI circuits etc.
- *Housekeeping/maintenance:* Inspect restrooms. Look for obstructions, tripping hazards, maintenance schedules and records, etc.
- *Personal protective equipment:* Check not only whether equipment is being used properly, but also whether it is being cared for properly.
- *Administrative:* This includes training records, emergency preparedness, accident reports, OSHA postings, etc.

Follow through after inspections

After an inspection is completed, a written report should follow. The report should list the department, time and date, a recap of corrective actions taken from the last report, and any non-conformances found during the current inspection, along with recommended corrective actions and timetables for completing them.

Communicate the inspection findings (good and bad) to all employees in the department.

Display the inspection report where it can be visible—for example, near the supervisor's office and/or the health and safety manager's office—in order to constantly monitor progress on corrective actions.

APPENDIX A: Sample Inspection Checklists

Example 1: Basic checklist

Housekeeping	Check if action required	Comments / Action required
Work aisles maintained and in orderly condition		
Floors, aisles, work areas free of slip, trip, and fall hazards		
Bathrooms clean and maintained		
Tools, equipment stored properly		

Source: National Safety Council.

Example 2: Detailed checklist

Housekeeping - Aisles			
Yes	No	N/A	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are aisle widths maintained?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are aisles and passageways properly illuminated?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are aisles in good condition?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are aisles kept clean and free of obstructions?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are aisles marked?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are fire aisles, access to stairways, and fire equipment kept clear?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is there safe clearance for equipment through aisles and doorways?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are aisles marked and maintained in good condition?

APPENDIX B: Comprehensive Checklist

Sample Self Inspection

Workplace Hazardous Information System		
Yes	No	Narrative
		Is there a written program?
		Does a MSDS exist for each hazardous substance in the workplace and are they accessible to all employees on all shifts?
		Is there a chemical inventory list of hazardous chemicals used and is it current?
		Is there a system for maintaining chemical inventory lists?
		Has a labeling system been identified?
		Has every employee who has the potential for exposure to hazardous chemicals has been trained upon their initial employment?
		Is training documented?

Lockout/Tagout/Energy Control		
Yes	No	Narrative
		Is there a written program?
		Are the written procedures specific to equipment?
		Have authorized and affected employees received initial training?
		Is training documented?
		Are annual reviews/inspections of programs available, current and documented?
		Are Lockout/Tagout locks and tags used only for controlling energy and for no other purpose?

Guarding		
	No	Narrative
		Are the following guarded?
		(a) blades
		(b) horizontal shafts
		(c) flywheels
		(d) pulleys
		(e) horizontal belts and ropes
		(f) vertical belts
		(g) gears, sprockets, chains
		On abrasive wheel grinders, are work rests adjusted for a maximum 1/8" opening to prevent work from becoming jammed?
		On abrasive wheel grinders, is the tongue a maximum distance of 1/4" clearance?
		The angular exposure of the grinding wheel on bench and floor stands should not exceed 90 or one-fourth of the periphery.

Emergency Eye Wash and Shower Stations		
Yes	No	Narrative
		Are eyes or body exposed to injurious corrosive materials?

Medical Services and First Aid		
Yes	No	Narrative
		Has at least one employee per work shift been designated as an emergency first aid/CPR provider?
		Do all designated first aid/CPR providers have a current certificate for providing first aid as required by the regulation?
		Is a first aid kit available and stocked according to the First Aid Regulation?
		Comments and Recommendations: Does the facility dispense pills, capsules or any other medication to employees?

		Does the first aid program meet all the requirement of the first aid regulation?
--	--	--

Personal Protective Equipment		
Yes	No	Narrative
		Has a hazard assessment for each job been completed to determine what personal protective equipment (PPE) is to be worn?
		Has each hazard assessment been documented?
		Has training been completed?
		Has the training been documented?
		Is PPE being worn as required?
		Is PPE available and in good shape - gloves with no holes?

Means of Egress		
Yes	No	Narrative
		Are exits or routes to reach exits clearly visible?
		Are exit doors marked with exit signs that have letters not less than 6" high?
		Are exit signs internally illuminated or do they have an external light source?

Power Industrial Trucks (Forklifts, Loaders)		
Yes	No	Narrative
		Are maintenance records kept for 12 months or is there a routine maintenance service agreement with vendor?
		Are daily checks performed before operating powered industrial trucks?
		Are operators trained to operate powered industrial trucks?
		Is training documented?
		Are engines shut off while refueling?

		Are brakes set on trucks and wheel chocks under rear wheels when being loaded? Are wheel stops or other devices used when loading rail cars?
--	--	--

Power Industrial Trucks (Forklifts, Loaders)		
Yes	No	Narrative
		Are dock boards strong enough to carry load?
		Are dock boards secured in position to prevent slipping?
		Are handholds provided to permit safe handling?

Overhead and Gantry Cranes		
Yes	No	Narrative
		Are rated loads plainly marked on each side of crane?
		Are daily visual inspections performed before using crane (all operating mechanisms, hooks, hoist chains)?
		Are there monthly inspections with a certification record that includes: <ul style="list-style-type: none"> (a) date of inspection (b) signature of person who performed inspection (c) the serial number (d) identifier of what was inspected performed on hooks, hoist chains, running ropes?
		Are annual, periodic inspections performed?
		Are annual, periodic inspections documented?

Slings		
Yes	No	Narrative
		Are slings inspected each day prior to use?
		Are inspection records available at least every 12 months for alloy steel slings?

Other Portable Tools and Equipment		
Yes	No	Narrative
		Are jacks legibly marked with their capacity rating?
		Are jacks inspected at least every 6 months?
		Are inspections documented?
		Are defective jacks tagged out-of-service?

Electrical		
Yes	No	Narrative
		Is each service, feeder, and branch circuit legibly marked to indicate its purpose unless it is so arranged that its purpose is evident?
		Are flexible cords being used as permanent wiring?
		Do all portable electrical equipment have a ground plug or are double insulated?
		Are all unused openings in electrical cabinets, boxes, and fittings effectively closed? (conductor openings)
		Are conductors entering boxes, cabinets, or fittings protected from abrasion?
		Are live parts operating at 50 volts or more guarded against accidental contact by approved cabinets, or other forms of approved enclosures?
		Are all pull boxes, and junction boxes covered with appropriate face plates and free of holes? (covers, canopies)

Fire Extinguisher Maintenance		
Yes	No	Narrative
		Are fire extinguishers mounted, easily identified, and accessible?
		Are fire extinguishers visually inspected monthly?
		Have annual maintenance checks been performed and documented?

Flammable, Combustible Liquids, Fuel Island		
Yes	No	Narrative
		Emergency shut off valve clearly marked / accessible?
		Refuel point: "NO SMOKING" signs posted?
		Refuel point: Fire extinguisher within 75 feet?
		Dispensing units for Class I liquids (i.e., gasoline) shall be mounted on concrete island or protected from collision damage?

Automatic Sprinkler Systems		
Yes	No	Narrative
		Maintenance - Flow Tests: Main drain flow test performed annually and inspection test valves opened every two years?

Employee Emergency Action Plan		
Yes	No	Narrative
		Written Employee Emergency Action Plan in place?
		Employees who are designated to use fire extinguishers are trained?

Management Findings Emergency Action Plan - Minimum		
Yes	No	Narrative
		<p>Emergency Action Plan:</p> <ul style="list-style-type: none"> (1) written (2) map with exits and rally points indicated (3) emergency reporting procedures (4) job titles of emergency coordinators <p>This plan must include a map showing escape routes and emergency exits. The plan shall indicate the rally point outside of the facility and shall include the method for reporting fires and other emergencies, and the job titles of the persons who are to assist in the safe and orderly evacuation of employees. This can be accomplished by a map and posting emergency telephone numbers at the facility, and designating who is the emergency coordinator.</p>
		Have employees been trained on the Emergency Action Plan?
		Is the Emergency Action Plan training documented?

Material Storage		
Yes	No	Narrative
		Is material stored in tiers stacked, blocked, interlocked and limited to prevent sliding, tipping, leaning or falling?

Management Findings Confined Space		
Yes	No	Narrative
		Is there a written confined space program?
		Has a list of "Confined Spaces Evaluated" been completed?
		Has a "Permit Required Confined Space Determination Worksheet" been completed for each space?
		Have "Permit Required Confined Spaces" been labeled?
		Is training documented?
		If contractors enter "Permit Required Confined Spaces", has their program been reviewed?

Housekeeping		
Yes	No	Narrative
		Is facility kept clean, orderly and in sanitary condition?

Walkways/Working Surface		
Yes	No	Narrative
		Are permanent aisles or passageways marked for employee walking areas?
		Are walking areas kept clear?

Platforms		
Yes	No	Narrative
		Are open sided floors or platforms 4 feet or more above the ground guarded by standard railings (42" high with a mid rail) and a 4" toeboard?

Respiratory Protection		
Yes	No	Narrative
		Are respirators provided to employees who are potentially exposed to excessive concentrations of airborne contaminants (e.g., asbestos, silica dust, solvent vapors) and oxygen deficient atmospheres?
		Are respirators worn by employees for comfort (voluntary use) where concentrations of airborne contaminants do not exceed permissible exposure limits?
		Are employees who voluntarily use dust masks (filtering face pieces), where conditions do not require the use of a respirator, trained, fit tested before being issued a dust mask?

Welding Operations		
Yes	No	Narrative
		Are welders suitably trained in the safe operation of their equipment and emergency procedures in the event of a fire?
		Is adequate ventilation provided when airborne contamination could exceed current health standards or an oxygen deficient atmosphere could develop?
		Are oxygen cylinders in storage separated from fuel-gas cylinders by a minimum of twenty feet or by a five-foot high noncombustible barrier of at least one-half hour fire resistance?
		Has flashback protection been installed on all fuel-gas systems to prevent the backflow of oxygen into the fuel-gas supply system and the passage of a flash back into the fuel-gas supply system?
		Are welding curtains or shields positioned so that passers by and employees in the immediate area cannot see the welding-arc?
		Is proper personal protective equipment provided to and worn by welders and welder helpers?
		Is a Hot Work Permit system in place?
		Are welding cables that must be laid on the floor or ground protected so that they will not interfere with safe passage?
		Are welding cables with splices within 10 feet of the holder, with damaged insulation or exposed bare conductors routinely identified and replaced?

Sanitation		
Yes	No	Narrative
		Are facilities kept in an orderly manner?
		Is potable water available for consumption and use?
		Are toilet and washing facilities maintained in a sanitary condition?

Multi-piece and Single-rim Tire Servicing		
Yes	No	Narrative
		Does employer have a program to train all employees who service rim wheels in the hazards involved in servicing those rim wheels and the health and safety procedures to be followed?
		Has employer evaluated each employee's ability to perform these tasks and to service rim wheels safely? Has employer provided additional training as necessary to assure that each employee maintains his or her proficiency? Is each employee tested according to their proficiency in tire servicing equipment maintenance activities?
		Does employer furnish a restraining device for inflating tires on multi-piece wheels?
		Does employer provide a restraining device or barrier for inflating tires on single piece wheels unless the rim wheel will be bolted onto a vehicle during inflation? Does employer provide a clip-on chuck?
		Does employer provide an in-line valve with a pressure gauge or a presettable regulator?
		Does employer provide a sufficient length of hose between the clip-on chuck and the in-line valve (if one is used) to allow the employee to stand outside the trajectory?

Management Findings

Material Handlers

Yes	No	Narrative
		Has employer conducted training for all material handling equipment operators?
		Are observations being conducted of material handling operations?
		Are employees disciplined/counseled regarding following the safe operations procedures?

MODULE 16.0: Ergonomics

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

Ergonomics (or human factors) is the field that deals with the understanding of interactions among humans and their environment. In a workplace environment an ergonomically-designed job would ensure that a taller worker had enough space to safely perform his or her job, and also that a shorter worker could reach all of his or her tools and products without reaching beyond a comfortable and safe range. The science and practice of ergonomics is used to improve many aspects of the interactions of people with jobs, systems, products, and environments.

WHY IS IT IMPORTANT?

Ergonomic related injuries continue to be one of the leading causes of work related injuries in Canada. The poor application of ergonomics in a workplace can result in requiring employees to work in awkward postures, perform the same motion over and over again or lift heavy loads – all of which could cause musculoskeletal disorders (MSD).

MSDs are injuries and disorders of the musculoskeletal system. They may be caused or aggravated by poor ergonomics (ergonomic hazards) in the workplace. The musculoskeletal system includes:

- muscles, tendons and tendon sheathes
- nerves
- bursa
- blood vessels
- joints/spinal discs, and
- ligaments.

MSDs do not include musculoskeletal injuries or disorders that are the direct result of a fall, struck by or against, caught in or on, vehicle collision, violence, etc.

Ergonomics aims at preventing injuries by controlling the risk factors such as force, repetition, posture and vibration that can cause MSD related injuries to develop.

WHAT IS REQUIRED?

- You should review your local provincial health and safety legislation in order to have a good understanding of any specific requirements related to ergonomics.
- Develop an ergonomics standard and procedure that meets the needs of your organization and the requirements of your local health and safety legislation.
- Train your managers, supervisors and employees on basic principles of ergonomics and their role within your ergonomic standard.
- Implement, monitor and maintain your ergonomic standard and procedure.

HOW DO YOU DO IT?

Develop an Ergonomic Standard and Procedure

The standard and procedure should meet the needs of your organization and comply with any prescribed legal requirements. There are many references available (some are listed below in the Where Can I Get More Information section) which that may be used to assist in determining what you should consider including in your organizations ergonomic standard. Depending on the complexity of your workplace, the nature of the work, the size and location of your operation an ergonomist may need to be consulted to assist in the development of your ergonomic standard and procedure.

Some of the content to include in your ergonomic standard and procedure includes the following:

1. Management commitment to address ergonomic hazards in the workplace.
2. A process to identify, assess and control ergonomics hazards and risks in each stage of design and operation of new or existing equipment or processes. Apply the requirements of module 3.0 Baseline Hazard and Health and Safety Program Assessment.
3. Apply the ergonomic assessment process in order to identify, assess and control hazards and risks in each stage of design and operation of new or existing systems. This includes in the planning, design, development, manufacturing, use, modification, and dismantling of systems, equipment, products, tools, facilities, and the organization and performance of work.
4. Develop and deliver ergonomics awareness training for employees. Ensure the training is documented.

WHERE CAN I GET MORE INFORMATION?

- Provincial health and safety government agency
- CSA Z1004 Workplace Ergonomics
- ISO 6385:2004 Ergonomic principles in the design of work systems

MODULE 17.0: Work Refusal

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

Work refusal is a right given to employees within provincial health and safety law which allows employees to refuse work that may endanger them or another employee. In most situations it would be expected that the employer and employees would be working in cooperation to deal with hazards in the workplace, thus avoiding any need for employees to exercise their right to refuse work.

WHY IS IT IMPORTANT?

Understanding of this legal provision by employers is required in order to ensure the process prescribed by the law is followed in dealing with work refusals.

WHAT IS REQUIRED?

- You should review your local provincial health and safety legislation in order to have a good understanding of the specific requirements for the handling of health and safety work refusals within your province.
- Develop a work refusal standard and procedure that meets the needs of your organization and the requirements of your health and safety legislation.
- Train your managers/supervisors and employees on their role as per the requirements of the Work Refusal standard and procedure.

HOW DO YOU DO IT?

Develop a Work Refusal Standard and Procedure

The standard and procedure should meet the needs of your organization and comply with the prescribed legal requirements. Some of the points to include in your work refusal standard and procedure include the following:

1. Employee requirement to report the unsafe work situation to their supervisor.
2. Supervisor requirement to investigate the situation and document the results of the investigation. Appendix A includes a sample form.
3. Employee remains in a safe location near the work station until the investigation is completed by the supervisor.

4. After the investigation is complete the supervisor will address and correct the situation as required.
5. After the situation is corrected and the employee agrees it is safe they will return to work.
6. If the employee still feels the work is unsafe, then they must advise the supervisor of the continued unsafe work situation.
7. The supervisor will then contact an employee member of the JHSC or the Safety Representative to be involved, and conduct a further investigation.
8. If further corrective actions are required, they will be taken, and then if the employee agrees it is safe they may return to work.
9. If the employee still feels unsafe, and the situation is not resolved the government enforcement health and safety officer/inspector it to be notified of the situation.
10. The health and safety officer/inspector will investigate the refusal and issue a written decision and corrective action orders if required.
11. The decision of the safety officer/inspector will be complied with as required and then the employee will return to work. It is possible that the decision of the safety officer/inspector is that there is no unsafe situation and then the employee will return to work.

APPENDIX A: Work Refusal Investigation Form

Date: _____

Employee Name: _____

Manager/Supervisor: _____

Time Reported: _____

Health and Safety Representative: _____

SECTION 1 – EMPLOYEE CONCERN

Describe Job Assigned: _____

Nature of concern: _____

SECTION 2 – MANAGER/SUPERVISOR RESPONSE

- a) Job is not safe-employee reassigned and machine/area tagged out pending completion of recommendations listed below.

- b) Job is not safe-to be made safe by completion of recommendations listed below

- c) Job is felt to be safe

In the event of response a) and b) the Manager/Supervisor will complete below:

Recommendations: _____

By Whom: _____

Date completed: _____

In the event of response b) or c), the Employee will sign one of:

1. I agree that my health and safety concern has been addressed.

Employee signature: _____

2. I do not agree that my health and safety concern has been addressed.

Employee signature: _____

SECTION 3 - NOTIFICATION

Senior Management notified: Time of call: _____ a.m./p.m.

Health and Safety Inspector/Officer notified: Time of call: _____ a.m./p.m.

Describe duties assigned to employee pending arrival of Inspector/Officer:

Time of Inspector/Officer arrival: _____ a.m./p.m.

Inspector/Officer name: _____

Orders/Penalties Issued: Yes (attached) No

**SECTION 4: ONLY TO BE USED WHEN WORK IS ASSIGNED TO ANOTHER
EMPLOYEE AND AUTHORIZED BY SENIOR MANAGEMENT**

Authorization from: _____

Position: _____

- Another Employee requested to perform assignment refused above

Health and Safety Representative:

I confirm that the nature and circumstances of this refusal have been conveyed to the person named below:

Health and Safety Rep. Name: _____

Health and Safety Rep. Signature: _____

Employee being assigned the work

I have been informed of the work refusal on this job assignment and the reasons for it. I understand my right to refuse this assignment for the same or different reasons than stated above.

- I agree to do the job.
- I refuse to do the job due to a health and safety concern.

Signature: _____

Date: _____

Time: _____ am/pm

MODULE 18.0: First Aid

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

First aid is emergency assistance given to an injured or ill employee by someone certified by a recognized agency to administer first aid. The objectives of first aid are to preserve life, prevent the injury or illness from becoming worse and to promote recovery.

WHY IS IT IMPORTANT?

Having a first aid program is important in order to minimize the extent of injury or illness by providing initial basic emergency care. In some cases first aid such as providing CPR to a person whose heart has stopped could save a life. The requirement to provide first aid in a workplace is also prescribed by health and safety legislation in all Canadian provinces.

WHAT IS REQUIRED?

- You should review your local provincial health and safety legislation in order to have a good understanding of the specific first aid requirements.
- Develop a first aid standard and procedure that meets the needs of your organization and the requirements of your health and safety legislation.
- Your first aid standard will include the first aid kit requirements and the requirements for training of first aiders.
- Train your managers/supervisors and employees on their role as per the requirements of your first aid standard and procedure.

HOW DO YOU DO IT?

Develop a First Aid Standard and Procedure

The standard and procedure should meet the needs of your organization and comply with the prescribed first aid legislated requirements. Some of the points to include in your first aid standard and procedure include the following:

1. How employees can contact first aiders and obtain first aid.

2. How many employees will be certified by a recognized agency to administer first aid within your organization. This will also include the maintenance of their certification.
3. The type and location of first aid kits that are required.
4. The requirement to inspect and maintain your first aid kits. Appendix A includes a sample first aid kit inspection tag.
5. The requirement to provide and maintain first aid equipment such as a blanket and stretcher or a first aid room.
6. The process to record first aid treatment. Appendix B includes a sample first aid treatment record.
7. The process to provide employees transportation for medical treatment.
8. Employee training to follow the procedure for obtaining first aid.

WHERE CAN I GET MORE INFORMATION?

- Provincial health and safety government agency
- A recognized first aid training agency

APPENDIX B: First Aid Treatment Record

This form must be completed by the First Aider each time First Aid is administered.

Injured Employee Name:	Date of Injury:
Time of Injury:	Location:

Nature of Injury (Describe how the injury occurred and body parts affected)

First Aid Treatment Administered

Names of Witnesses

Name of First Aid Aider

Signature

Date of First Aid Treatment

Time of First Aid Treatment

- * Forward completed report to the Safety Co-ordinator.
- * Employee's Manager/Supervisor must be notified immediately.

MODULE 19.0: Personal Protective Equipment

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

Personal protective equipment (PPE) are items such as safety shoes, safety glasses, hardhats, gloves and respirators. PPE is regarded as the last line of defence for the protection of employees against health and safety hazards. Hazard controls such as elimination, substitution engineering, administrative controls, and training are all to be considered as controls for health and safety hazards prior to the use of PPE.

WHY IS IT IMPORTANT?

PPE plays an important role in protecting employees from hazard when the other hazard controls measures may not possible. PPE is also applied in combination with other hazards control measures. The requirement for the use of PPE under certain situations is also prescribed by health and safety legislation.

WHAT IS REQUIRED?

- Become familiar with the PPE requirements prescribed by your local health and safety legislation that applies to your workplace.
- Develop a standard and procedure that meets the needs of your organization and any applicable prescribe health and safety legislation.
- Ensure that the required PPE is available and maintained.
- Train employees on the requirements for the use and maintenance of the PPE.
- Monitor and enforce the use of the required PPE by employees.

HOW DO YOU DO IT?

Develop a First Aid Standard and Procedure

The standard and procedure should meet the needs of your organization and comply with the prescribed PPE legislated requirements. Some of the points to include in your PPE standard and procedure include the following:

1. Carry out a need assessment to determine the PPE requirements based on hazards and legislative requirements.
2. Establish the purchasing standard for each type of PPE to be used.

3. Document the requirements for when and where each type of PPE is required.
4. Document the requirements for the maintenance and replacement of each type of PPE.
5. Develop and deliver employee training on the requirements, use and maintenance of PPE. Ensure the training is documented.
6. Implement, maintain, monitor and enforce your PPE standard and procedure.

Appendix A provides a sample personal protective equipment requirements record form that may be used to document your PPE requirements.

WHERE CAN I GET MORE INFORMATION?

- Provincial health and safety government agency
- CSA Standards for Personal Protective Equipment

APPENDIX A: Sample Personal Protective Equipment Requirements Record

PPE Type	Where Required	Who Must Use It	When It Must Be Used	Item Purchasing Standard	Supplier	Replacement Process
Steel Toe Shoe						
Safety Glasses						
Face Shield						
Goggles						
Hardhat						
Safety Vest						
Work Gloves						
PVC Gloves						
Rubber Gloves						
Apron						
Ear Plugs						
Ear Muffs						
Full Body Harness & Lanyard						
Dust Masks						
Half Mask Respirators						
Full Face Respirators						

MODULE 20.0: Workplace Hazardous Material Information System

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

The Workplace Hazardous Materials Information System (WHMIS) is a major response to Canadian workers' rights to know more about the health and safety hazards of chemicals used in the workplace. WHMIS is legislation designed to ensure that all employees working with any chemicals or hazardous substances are able to do so in the safest possible way that protects their health and safety. The legislation specifies requirements for supplier labels, workplace labels, material safety data sheets (MSDS) and employee training.

WHY IS IT IMPORTANT?

WHMIS is important since it provides employees, employers and suppliers nationwide with specific vital information about hazardous materials.

WHMIS was designed to inform anyone who is exposed to hazardous material in their workplace about the hazards, health effects (long and short term) and the appropriate precautions to be used when handling, storing and disposing of such hazardous materials.

WHAT IS REQUIRED?

- Become familiar with the WHMIS requirements prescribed by your local health and safety legislation.
- Develop a standard and procedure that meets the needs of your organization and WHMIS legislation.
- Ensure that WHMIS controlled products used in the workplace have supplier or workplace labels as prescribed by the legislation.
- Ensure that MSDS's for controlled products used in the workplace are available to employees and are kept current.
- Ensure that employees that work with WHMIS controlled products receive generic and job specific WHMIS training.
- Monitor and enforce the WHMIS requirements.

HOW DO YOU DO IT?

Develop a WHMIS Program

The WHMIS Program should meet the needs of your organization and comply with WHMIS legislation. Some of the points to include in your WHMIS Program include the following:

1. The requirement for supplier labels on all products which are controlled substances regulated under WHMIS legislation.
2. The requirement for workplace labels on all products which are controlled substances regulated under WHMIS legislation.
3. The requirement for MSDS's for all products which are controlled substances regulated under WHMIS legislation. Current MSDS's should be available to employees for the chemicals which they use or may be exposed to.
4. Develop and deliver employee WHMIS training. The training should be specific to the chemicals employees use or may be exposed to. Ensure the training is documented.

WHERE CAN I GET MORE INFORMATION?

- Provincial health and safety government agency

MODULE 21.0: Workplace Violence & Harassment Prevention

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

Workplace violence can be generally defined as;

(a) the exercise of physical force by a person against a worker, in a workplace, that causes or could cause physical injury to the worker, this includes but is not limited to physical acts such as punching, hitting, kicking, pushing, damaging property or throwing objects.

(b) an attempt to exercise physical force against a worker, in a workplace, that could cause physical injury to the worker,

(c) a statement or behaviour that it is reasonable for a worker to interpret as a threat to exercise physical force against the worker, in a workplace, that could cause physical injury to the worker. This may include behaviour such as bringing a weapon of any kind to a workplace or possessing a weapon of any kind while carrying out company business, or threatening to bring a weapon to a workplace.

Harassment can be generally defined as;

Engaging in the course of a vexatious comment or conduct against a worker in a workplace that is known or ought reasonably to be known to be unwelcome. Harassment comprises any objectionable act, communication or display that is perceived to be insulting, frightening, embarrassing, offensive, humiliating, demeaning, or otherwise unwelcome, and that may have the effect of creating an intimidating, hostile or offensive work environment, interfering with an individual's performance, negatively affecting an individual's employment relationship, affecting the inherent personal dignity of the individual or their psychological or physical integrity. It includes behaviour such as bullying and sexual harassment.

WHY IS IT IMPORTANT?

Wherever people interact at work there is a potential for violence and harassment, regardless of the job. Workplace violence and harassment is a serious issue that affects all business sectors and occupations. It affects the safety and security of every employee and employer. A common activity such as the handling of cash creates the risk of exposure to the risk of workplace violence. Many Canadian provinces have enacted specific health and safety legislation requiring employers to take prescribed actions related to the prevention and response to the risk of workplace violence and harassment.

WHAT IS REQUIRED?

- Become familiar with the workplace violence and harassment requirements prescribed by your local health and safety legislation.
- Establish a zero tolerance approach to dealing with workplace violence and harassment incidents.
- Assess the risk of exposure to violence at your workplace.
- Develop a standard and procedure that meets the needs of your organization and your local health and safety legislation.
- Your organization should encourage employees to report incidents of workplace violence and harassment.
- Ensure you respond to and investigate employee reports of workplace violence and harassment.
- Monitor and enforce the requirements of your standard and procedure.

HOW DO YOU DO IT?

Develop a Prevention of Workplace Violence & Harassment Standard and Procedure

The standard and procedure should meet the needs of your organization and your local health and safety legislation. Some of the points to include in your standard and procedure include the following:

1. Develop and post a workplace violence and harassment policy statement in a conspicuous place (see Appendix A for a sample statement).
2. Procedures for reporting, responding and investigating incidents of workplace violence and harassment.
3. Carry out a risk assessment for workplace violence. (see Appendix B for a sample workplace violence risk assessment form). The assessment should identify, assess and control risks of workplace violence. Apply the requirements of module 3.0 Baseline Hazard and Health and Safety Program Assessment.
4. Implement and maintain specific control measures in your workplace based on the results of workplace violence risk assessment.
5. Develop and deliver senior management, manager/supervisor and employee training on their roles and responsibilities as they relate to your standard and procedure. Ensure the training is documented.

WHERE CAN I GET MORE INFORMATION?

- Provincial health and safety government agency

APPENDIX A: Prevention of Violence & Harassment in the Workplace Policy

ABC Company is committed to conducting business in a manner that maintains a safe and healthy work environment for all employees, contractors, visitors and customers. We will not tolerate behaviour from anyone that intimidates, threatens, harasses, abuses, injures or otherwise victimizes our employees and will take whatever steps are appropriate and reasonable to protect our employees from the potential risks associated with workplace violence and harassment.

Employer Commitment

The Executive Team is committed to promoting a safe and healthy work environment, and protecting employees from workplace violence and harassment and in supporting managers in doing the same.

The Executive Team will ensure that appropriate procedures are in place to minimize the risk to our employees from violence and harassment, and that employees are trained in recognizing and responding to situations involving workplace violence or harassment.

Management Commitment

The management staff will take all reasonable precautions to protect employees from workplace violence and harassment, and ensure team members are aware of their rights and responsibilities as they relate to the prevention of workplace violence and harassment.

The management team will ensure incidents of workplace violence and harassment are investigated and that regular risk assessments are conducted to identify and control any identified risks related to workplace violence.

Employee Commitment

It is the responsibility of each employee to be aware of and follow procedures that are in place to protect them from workplace violence and harassment.

Employees are required to immediately report all incidents of workplace violence and harassment to management.

Employees will not be penalized, reprimanded or in any way criticized when acting in good faith bringing forward a complaint or providing information regarding a complaint or incident of workplace violence or harassment.

APPENDIX B: Sample Workplace Violence Risk Assessment

This form is designed to help Managers/Supervisors conduct a risk assessment of the potential for violence associated with the activities carried by employees and the work environment, and to implement control measures for any identified risks.

Completed By: _____

Location: _____

Date: _____

HISTORY

1. Have there been incidents when employees at the worksite have experienced or been threatened with physical violence? NO, YES, please describe incidents.

describe

2. Have there been incidents when employees in the worksite have experienced verbal abuse i.e. shouted at, obscene language, threats, or obscene phone calls? NO, YES, please describe incidents.

describe

ACTIVITIES WHICH MIGHT EXPOSE EMPLOYEES TO RISK OF VIOLENCE

3. Do employees in your worksite work with money or other valuables? NO, YES
4. Do employees in your worksite deliver or collect items of value? NO, YES, please describe

describe

5. Do employees in your worksite deal with people who may be under the influence of drugs or alcohol? NO, YES

6. Do employees in your worksite deal with people who are deeply troubled or distressed? NO, YES

7. Do employees in your worksite monitor or regulate the activity of others or carry out procedures or make decisions which adversely affect others? NO, YES, please describe

describe

8. Are employees in your worksite involved with activities that may elicit a negative or confrontational response? NO, YES, please describe

describe

9. Are there other aspects of the work in your worksite that might spark a violent response?

NO, YES, please describe

describe

FACTORS THAT INCREASE THE RISK OF VIOLENCE

Definition: A person works alone when he/she works in a situation where he/she is out of sight and out of hearing of other employees for an extended period of time.

10. Do any of your employees work alone during normal working hours? NO, YES, please describe

describe

11. Do any of your employees work alone after normal working hours? NO, YES, please describe

describe

12. Please describe any precautions already taken to safeguard employees of your worksite who work alone.

describe

13. Please describe other factors which you feel might increase the risk of violence.

describe

REDUCING THE RISK OF VIOLENCE

14. Please describe policies or procedures already in place to reduce the risk of violence in your worksite.

describe

15. In light of your responses to the questions in this assessment:

a) Do you consider that all reasonable steps have been taken to prevent or reduce the risk of violence? NO, YES

b) What further steps would you recommend?

type here

c) What assistance do you need to accomplish any of the above steps? Specify:

type here

WORK ENVIRONMENT ASSESSMENT

ITEM	YES	NO
Parking Lot		
Are the entrances and exits well marked?		
Does the lot have signs with security reminders (e.g., "Lock your car", "security patrolled")		
Is there enough lighting?		
Do pass cards control access to the lot?		
Are alarms clearly marked?		
Are company vehicles parked on-site after hours?		
If yes, is there a secured parking lot for company vehicles after hours?		
Have vehicles been stolen from the parking lot?		
Have vehicles been broken into?		
Around the Outside of the Building		
Is your workplace near any buildings or businesses that are at risk from violent crime (e.g., bars, banks)?		
Do violent, criminal, drunk, or drugged persons ever come into your building?		
Is your building located in a high-crime area?		
Are there signs of vandalism		
Are you located in a dense manufacturing area?		
Are you isolated from other buildings?		
Is there graffiti on the building walls?		
Is the building entrance well lit?		
Are outside lights checked before dark?		
Are garbage areas, external buildings, or equipment that employees use:		
• in an area with good visibility?		
• close to the main building with no possible hiding places?		
Is your building shared with other businesses?		
If yes, is entry to your area(s) controlled?		
Is there a system to alert employees if intruders enter?		
Are offices designed so that public and private spaces are clearly identified?		
Do you use coded cards or keys to control access to the building or to certain areas within the building?		
Is there a system in place to limit the number of keys/entry cards given out?		
Do you change locks/codes immediately if keys/cards are lost or misplaced?		
Security System		
Do you have a security system at your location?		
If yes, is the system tested on a regular basis (e.g., at least monthly)?		
Is the security system adequate?		
Are there security guards/safety walking services available at your location?		
Are signs posted indicating that there is a security system in use?		
Are there security cameras and mirrors placed in locations that would deter potential intruders?		
Reception		
Is your reception area easily seen and easy to get to?		
Can the receptionist/ sales clerk clearly see incoming visitors/customers?		
Is the reception area/sales counter visible to fellow employees or members of the public?		
Is your reception area staffed at all times?		
Can outsiders enter the building when there is no receptionist present?		
Is the reception area the first stop for visitors?		
Do you have a policy for receiving, escorting, and identifying visitors?		
Does the reception area function as a security screening area for unwanted visitors?		
Does your receptionist work alone at times?		
Is there an emergency call button at the reception area?		
If yes, have response procedures been developed?		
Are there objects/tools/equipment in this area that someone could use as a missile or weapon?		

ITEM	YES	NO
Signs		
When you enter the building, are there signs to identify where you are?		
Are there signs inside the building showing you where to get emergency assistance if needed? If no, what signs are needed and where?		
Are visitor areas and private areas clearly marked?		
Are rules for visitors clearly posted?		
Are there exit signs?		
Are there areas where exit signs are not present but are needed? If yes, where?		
Can the posted signs be easily seen by everyone? If no, where are these signs located?		
Are the hours of operation clearly posted?		
Impression of overall signage: <input type="checkbox"/> very poor <input type="checkbox"/> poor <input type="checkbox"/> satisfactory <input type="checkbox"/> good <input type="checkbox"/> very good		
What other signs should be added?		
Work Practices		
Do you or any of your co-workers:		
• work with the public?		
• handle money, valuables, or prescription drugs?		
• carry out inspection or enforcement duties?		
• provide service, care, advice, or education?		
• work with unstable or violent persons?		
• work in workplaces where alcohol is served?		
• work alone or in small numbers?		
• work in community-based settings?		
• drive a vehicle as part of the job?		
• work during the late hours of the evening or early hours of the morning?		
• use public transit during the workday?		
• travel to other cities/countries?		
• stay in hotels?		
Lighting		
List areas where lighting was a concern (too dark or too bright) during the inspection.		
Is the lighting evenly spaced?		
Are any of the lights out? If yes, where are they located?		
Can you access main light control switches? If yes, where?		

ITEM	YES	NO
Stairways and Exits		
Do exit doors identify the exit location?		
Could someone easily hide at the bottom of stairwells? If yes, where?		
Is the lighting bright enough?		
Can lights be turned off in the stairwell?		
Is there more than one exit route?		
Are there any exit routes, which prevent you from getting away? If yes, where?		
Do stairwell doors lock behind you:		
• during regular hours of operation?		
• after regular hours of operation?		
Possible Areas for an Attack		
Are there empty rooms that should be locked? If yes, where?		
Places to Hide		
Are there small areas where someone could hide, such as: <input type="checkbox"/> recessed doorways <input type="checkbox"/> unlocked storage areas <input type="checkbox"/> stairwells <input type="checkbox"/> elevators <input type="checkbox"/> _____ If so, where?		
What would make it easier to see if someone is hiding: <input type="checkbox"/> transparent materials like glass <input type="checkbox"/> mirrors <input type="checkbox"/> windows in doors <input type="checkbox"/> angled corners <input type="checkbox"/> less shrubbery <input type="checkbox"/> other _____		
Do members of the public approach from the front of the building only?		
Working Alone		
At the time of the inspection, did any areas feel isolated? If yes, what areas?		
In these areas, is there a telephone or a sign directing you to assistance?		
In these areas, how far away is the nearest person who could hear calls for help?		
Are alarms or panic buttons installed?		
Are the alarms or panic buttons easily accessible?		
Do you periodically check that the alarms or panic buttons are functioning?		
How many people were around you at the time of this inspection?		
Is it easy to predict when people will be around?		
Patterns of Movement		
Do you arrive and leave at the same time every day using the same route?		
How easily could someone get to know your patterns of movement? <input type="checkbox"/> very easily <input type="checkbox"/> somewhat easily <input type="checkbox"/> no way of knowing		
Is there another well-lit route used by a lot of people that you can take?		
Can you easily tell what is at the other end of each walkway or corridor? If no, where?		
In walkways and corridors, are there corners or alcoves where someone could hide? If yes, where?		
Elevators		
Are you able to see if the elevator is occupied before entering?		
Is there an emergency phone or emergency call button in each elevator?		
Is there a response procedure for elevator emergencies?		

ITEM	YES	NO
Washrooms		
Can the public use the same washrooms as staff?		
Can the lights in the washrooms be turned off?		
Are washrooms checked before building is vacated?		
Interview and Meeting Rooms		
Do you have a separate interview/meeting room?		
If yes, can employees see inside?		
Is there an alarm system in this room?		
Is the furniture arranged to allow for emergency exits?		
Individual Offices		
Are certain employees at higher risk from workplace violence because of the office layout or location?		
Has their furniture been arranged to:		
• allow for a quick exit from the office?		
• maintain a minimum distance (approx. 6 feet or 2 metres) between employees and clients?		
Have the number of objects that can be used as weapons be reduced?		
Do these offices have good visibility through the use of shatterproof glass in walls/doors?		
Emergency Assistance		
Has an emergency contact number been established for use:		
• during regular hours of operation?		
• after regular hours of operation?		
Are emergency numbers posted on phones?		
Are emergency phones accessible in all areas?		
If no, where is access needed?		
Is there a designated "safe" room where employees can go during an emergency?		
Does this room have a telephone and a door that can be locked from the inside?		

Areas of Improvement: What improvements would you like to see? (If you need more space, use a blank page)			
Action	Responsible	Status	Expected Completion Date
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
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		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	
		<input type="checkbox"/> Completed <input type="checkbox"/> Planned	

MODULE 22.0: Emergency Action Plan

APPLICABLE STANDARD: Provincial Health and Safety Legislation and Local Fire Codes, Legislation, CSA Z1000-06 Occupational Health and Safety Management

EMPLOYEES AFFECTED: All employees

WHAT IS IT?

An emergency action plan is a predetermined plan for how your business will respond to (a) getting help to an injured worker and (b) getting all personnel to evacuate the property or seek refuge during an emergency situation.

WHY IS IT IMPORTANT?

When an emergency strikes, every second counts. There is no time to start thinking about what has to be done, where, or by whom. From getting medical attention to a severely injured worker to getting all employees out of a burning building, seconds spell the difference between life and death. Having an established emergency response plan can save your property, your assets, and—most importantly—your employees.

WHAT IS REQUIRED?

- Develop an emergency action plan that states specifically how the operation will respond during an emergency situation.
- Train employees on specific emergency procedures.
- Perform practice drills, and adjust the plan based on results.

HOW DO YOU DO IT?

Start talking

The truth is, no one wants to talk about emergency situations. However, if you don't develop a plan before you need it, your emergency response is destined to fail. The key to getting your plan off the ground is to begin the dialog. Assemble your leadership team and ask, "What if?" Take a step at a time, considering every operation in your yard. Soon, you will get an idea of how prepared you are for a likely emergency.

For example, you might come up with scenarios and questions like these:

"What if a worker amputates an arm at the shear?"

- Who goes for help?

- How are other people alerted to the injury (radio, intercom, etc.)?
- Who calls 9-1-1? Do they know where the phone is and how to make the call? (In some facilities, where you first have to dial 9 to get an outside line, the emergency number may actually be 9-9-1-1.)
- Do emergency responders know where to go?
- Who will meet emergency responders at the gate and bring them to the injured person?

"What if we accidentally break open a scrap container filled with poisonous or flammable gas and we need to evacuate the premises?"

- How do we alert workers, visitors, contractors, etc. about the evacuation?
- Once people evacuate, where do they go, and what are they supposed to do when they get there?
- Who calls outside rescue?
- Does outside rescue know where to go?
- Who calls neighboring property owners?
- Who serves as media contact? Do they know their role?

The good news is that right now you don't have to have all the answers, because the emergency isn't happening right now. The key to emergency planning is balance. You want to think "worst case," but don't get bogged down in discussing far-out possibilities that could rarely happen. The best way to qualify the scenario is by asking two questions:

- What is the likelihood of it happening?
- If it does, how bad will it be?

You can build your scenarios into a table like this:

		Severity of consequences (how bad will it be?)	
		LOW	HIGH
Likelihood of occurrence	HIGH	<ul style="list-style-type: none"> • Heavy rains • • 	<ul style="list-style-type: none"> • Fire • •
	LOW	<ul style="list-style-type: none"> • Hordes of locusts • • 	<ul style="list-style-type: none"> • Gas main leak • •

After completing this exercise, you can prioritize the list and target the HIGH/HIGH areas first.

Building the plan

Building an effective emergency response plan is nothing more than developing a system to communicate during an emergency and assigning responsibility to ensure certain tasks get completed. Appendix A presents a sample emergency response plan.

Internal communication. Think about your operation. How would you communicate to your entire staff that they need to evacuate? On the reverse, how would a single worker communicate to you (and critical staff) that someone is seriously hurt in the back part of the yard? From cell phones to radios to intercoms, the possibilities are endless. The key is to use a consistent system and make sure everyone is aware of it. Also as part of a strong program, emergency evacuation posters showing means of egress and meeting spots must be located throughout the facility.

External communication. Most emergency situations require some kind of outside assistance. Develop a system that ensures that the call for help is made quickly and that the person making the call has all of the pertinent information to get the right rescue workers to the scene as soon as possible. Aside from rescue workers, make sure you have a system to alert neighbors and/or other operations if the emergency involves them.

Internal response. What are people supposed to do? This is a very simple question that requires a complex answer. As part of each emergency scenario, you need to develop responsibilities to ensure certain tasks get done. These tasks can include:

- calling for outside assistance
- meeting rescue personnel at the front gate
- managing traffic in the yard to allow emergency workers access
- evacuating to the meeting spot
- taking head counts of other workers
- shutting down critical equipment
- talking to the media.

When determining whether you would like workers to be part of a firefighting effort, remember that *no building or piece of equipment is worth a life*. Getting all of the employees out is a perfectly acceptable emergency response plan. If you do in fact expect workers to fight a fire, they must undergo extensive training in using firefighting equipment.

External response. The best way to get an efficient and effective response from outside rescue workers is to have a great working relationship with them prior to your needing them. Meetings, familiarization tours, and on-site drills will allow rescue workers to understand your operation without the chaos of a real emergency situation. A key point to remember is that when they show up on site during an emergency, they are now in charge, and you are not.

Training

The importance of making sure employees know what to do and where to go during an emergency situation cannot be stressed enough. Emergency response training should be part of your ongoing training schedule, and it must be part of your new employee orientation program. Training should at least cover alarms and notification systems, evacuation routes, and meeting spots.

Drills

Most operations will tell you there is never a good time to conduct an emergency training drill, but that shouldn't stop you from having one. Having a drill will provide essential feedback on how in-tune everyone is with the plan. If a drill produces poor results, your company should require retraining and re-drilling to ensure the plan truly works when needed.

APPENDIX A: Sample Emergency Response Plan

The following plan, from a real scrap processing company, is provided as an example.

ABC COMPANY EMERGENCY RESPONSE PLAN

Purpose

ABC Company is dedicated to the protection of its employees from emergencies such as tornadoes and fires. When emergencies do occur, our Emergency Action Plan (EAP) is initiated. This EAP is in place to ensure employee health and safety from emergencies during regular hours and after hours. It provides a written document detailing and organizing the actions and procedures to be followed by employees in case of a workplace emergency.

Local Fire Code requires ABC Company to have a written Emergency Action Plan (EAP). This plan applies to all operations in our company where employees may encounter an emergency situation.

The EAP communicates to employees policies and procedures to follow in emergencies. This written plan is available, upon request, to employees, their designated representatives, and any enforcement officials who ask to see it.

Administrative duties

The Local Manager (or designee) is the EAP administrator, who has overall responsibility for the plan. This responsibility includes the following:

- developing and maintaining a written EAP for regular and after-hours work conditions
- notifying the proper rescue and law enforcement authorities and the building owner or superintendent in the event of an emergency affecting the facility
- taking security measures to protect employees
- integrating the EAP with any existing general emergency plan covering the building or work area occupied
- distributing to each employee procedures for reporting emergencies, the location of safe exits, and evacuation routes
- conducting drills to acquaint employees with emergency procedures and to judge the effectiveness of the plan
- training designated employees in emergency response, such as the use of fire extinguishers and the application of first aid
- deciding which emergency response to initiate (evacuate or not)
- ensuring that equipment is placed and locked in storage rooms or desks for protection

- maintaining records and property as necessary
- ensuring that our facility meets all local fire codes, building codes, and regulations.

The Local Manager has full authority to decide to implement the EAP if he/she believes an emergency might threaten human health. The following potential emergencies might reasonably be expected at this facility and thus call for the implementation of this EAP:

- fires
- fuel or chemical spills
- tornadoes.

Copies of this plan may be obtained from the Health and Safety Department in the Corporate Office building. The Corporate Health and Safety Director is responsible for reviewing and updating the plan as necessary. The Corporate Health and Safety Director can be contacted regarding further information about the written EAP or an explanation of duties under this plan.

Key management personnel home telephone numbers are kept in the main office, for immediate use in the event of an emergency. These key management members include:

- General Manager
- Office Manager
- Yard Manager
- Warehouse Manager
- Scale Manager.

If, after reading this plan, you find that improvements can be made, please contact the Corporate Health and Safety Director. We encourage all suggestions because we are committed to the success of our EAP. We strive for clear understanding, safe behavior, and involvement in the program from every level of the company.

Alarms

Different emergencies call for different alarms to indicate what actions employees should take. ABC Company has established an employee alarm system. We have 10 or fewer employees, therefore we use direct voice communication as our means for alerting employees to an emergency. We will use the tornado alarm to warn employees of tornado watches and warnings.

We have posted the following emergency telephone numbers near telephones, on emergency notice boards, and in other conspicuous locations for use when telephones serve as a means of reporting emergencies:

Emergency responder: Telephone number:

Emergency	911
Local Hospital	_____
Local Police	_____
Local Utility Companies	_____

Emergency reporting and weather monitoring procedures

In the event of an emergency requiring evacuation

When employees detect an emergency that requires an evacuation, such as a fire or hazardous release, they should notify co-workers in the same building or work area, and then take appropriate precautions. These include notifying a supervisor to contact the fire department, and seeking shelter in the event of severe weather. A member of management will notify the local fire department.

Our backup method for reporting emergencies that require evacuation includes the immediate and direct contact of respective authorities by the employee having first knowledge of the emergency.

In the event of a tornado watch

When the National Weather Service issues a tornado watch, the weather page will sound, followed by a weather bulletin with further information. At that point, the health and safety manager or designee will turn on the scanner to monitor the National Weather Service reports. The health and safety manager will use the tornado alarm to warn employees of the threat of weather emergencies. He/she will sound the alarm for both watches and warnings.

Our backup method for monitoring tornadoes includes monitoring of local Doppler via Internet.

Evacuation procedures

Some emergencies require evacuation or escape procedures, while some require employees to stay indoors or in a safe area. Our emergency escape procedures are designed to respond to many potential emergencies, depending on the degree of seriousness. Nothing in these procedures precludes the Local Manager’s authority in determining whether employees should remain inside or evacuate.

Our emergency evacuation procedures and assignments are designed to respond to many potential emergencies, including fires.

Employees need to know what to do if they are alerted to a specific emergency. After an alarm is sounded to evacuate, employees should take the following steps:

- Cease work and proceed to the nearest available and safe exit to leave the facility.

- Make sure all customers and other non-employees are evacuated.
- Once evacuated, head toward their designated exterior or safe area, where a head count will be performed and further instructions given.

Procedures to account for employees

Trained evacuation personnel assist in safe and orderly evacuation for all types of emergencies that require evacuation. The employees selected are trained in the complete workplace layout and the various alternative escape routes from the workplace. Before leaving, these employees check rooms and other enclosed spaces in the workplace for employees who may be trapped or otherwise unable to evacuate the area.

This list indicates a sufficient number of employees who have been designated by the company and trained to:

- direct and assist in safe and orderly emergency evacuation
- provide guidance and instruction for all types of emergency situations
- be aware of employees with special needs who may require extra assistance
- use the buddy system
- avoid hazardous areas during an emergency evacuation.

The list of trained personnel includes at least one person from every area for every shift. This means that every trained evacuation person is responsible for seeing to approximately ten or fewer evacuated employees. The trained personnel also serve as a resource of information about emergency procedures and conduct head counts once evacuation is complete.

Frontline supervisors must be aware of the locations of those employees working on a particular day when an emergency occurs, as well as suppliers, customers, and other non-employees on the premises, and be aware of who is absent or otherwise away from the premises. Accounting for employees and non-employees will aid local responding fire and rescue departments in determining whether rescue efforts are necessary.

Each department reports to its respective representative in person or by radio to its immediate supervisor. Once each evacuated group of employees has reached its evacuation destinations, each trained evacuation employee:

- takes roll of his or her group
- makes sure all persons are accounted for
- reports in to a central checkpoint managed by the local manager
- assumes the role of department contact to answer questions.

Head count results should be given to the local fire chief or firefighter, if requested.

Other duties provided by the trained personnel during an emergency evacuation include notifying firefighters of any special hazards present in terms of scrap

material (e.g., magnesium).

No employees are to return to the buildings until advised by the Local Manager or designee (after determination has been made that such re-entry is safe). If anyone is injured or contaminated, the Local Manager will activate rescue and first aid actions. If an emergency incident expands, the Local Manager may send employees home by normal means or provide them with transportation to an offsite location.

Non-evacuation emergency procedures

ABC Company has the following non-evacuation procedures:

- Taking shelter in the event of tornado.

Responding to a tornado alarm

In the event of a tornado, it is corporate policy to provide emergency warning and shelter. Once employees are made aware of a tornado situation, they are to follow these procedures:

- Alert visitors to the emergency and take them to the nearest shelter.
- Stay away from windows, but stay inside the building they are in.
- Remain in the shelter and do not return to regular duties until the all-clear is given.

The Local Manager will monitor the radio for information and advice from the local government and weather service. The Local Manager will determine when it is safe for employees to leave their tornado shelter and return to work. At that time, the Local Manager will notify departmental supervisors by radio or direct contact.

If there is structural damage, the Local Manager will assess the damage and ensure that appropriate actions are taken to provide for employee health and safety and security as well as structural soundness.

If anyone is injured or contaminated, the Local Manager will activate rescue and first aid actions.

Plan administrator duties

During an emergency, the Local Manager will do the following:

- Assess the situation to determine whether an emergency exists requiring activation of emergency procedures.
- Supervise all efforts, including evacuating employees.
- Call outside emergency services.
- Take all necessary measures to contain the hazard and prevent its spread to other nearby areas, with the assistance of emergency personnel.
- Direct the shutdown of facility operations when required.
- If the emergency involves the release of a biological agent, turn off the ventilation system in the building.
- If the emergency is a hazardous material spill, ensure that the hazardous

material and any material with which it came into contact (gravel, soil, etc.), is scraped up using shovels and/or brooms. All this combined material will be considered hazardous waste unless analysis shows otherwise.

- Provide for collection, treatment, and disposal of the waste and contaminated material by the emergency crew or outside contractor, as appropriate.
- Ensure that contaminated soil, liquids, or other materials are placed in drums and handled as hazardous waste.
- Ensure that the emergency crew restores all emergency equipment to full operational status.
- Assisted by other qualified persons, begin to investigate the cause of the emergency and take steps to prevent a recurrence of such or similar incidents.
- Ensure that the cause of the emergency is investigated and eliminated and that cleanup and restoration progress at least to the point of not jeopardizing the health and safety of the employees, and that EPA, state, and local authorities are notified, if required.
- Ensure that for spills or releases involving a hazardous substance at or above its reportable quantity, the following necessary information is recorded and reported: name of chemical(s) involved; estimated quantity of the released substance; time of the release and duration; medium into which the substance was released; health risks associated with the release; precautions taken to respond to the release; name and telephone numbers of persons who can be contacted for further information.

Rescue and first aid

Rescue and first aid may be necessary during emergency situations. Professional emergency services responding in an emergency will help with and direct all rescue and medical duty assignments upon their arrival on site. Appropriate first-aid supplies have also been provided.

Circumstances calling for rescue or first aid include:

Circumstances:

Personnel caught in equipment

Procedures:

Contact Maintenance Manager immediately to determine machine shutdown/extraction procedure

Training

Our Local Manager reviews the EAP with each of our employees at the following times:

- initially when the plan is developed
- whenever a new employee is hired
- whenever the employee is assigned initially to a job

- whenever an employee's responsibilities or designated actions under the plan change
- whenever new equipment, materials, or processes are introduced into the workplace
- whenever the layout or design of the facility changes
- whenever the plan is changed.

The training includes the following:

- employee roles and responsibilities
- threats, hazards, and protective actions
- notification, warning, and communications procedures
- means for locating family members
- emergency response procedures
- evacuation, shelter, and accountability procedures
- location and use of common emergency equipment
- emergency shutdown procedures.

The information in this plan is not intended for casual reading, but is intended to get the appropriate message across. We present the material for training in the following manner:

- health and safety meetings
- hands-on demonstrations.

Drills

ABC Company performs drills for the following emergencies:

- fire
- tornado.

We hold these drills at least annually.

After a drill, the Local Manager judges the effectiveness of the plan and reviews any employee input concerning the drill. Employees performing the drill may identify something that did not follow procedure or was ineffective. For example, they may discover doors that would not open; they may enter storage closets instead of exiting; they may get lost and confused; or they may carry a suspicious package through the facility. These are the types of things the Local Manager needs to hear about after a drill. That way, these issues can be addressed before a real emergency.

MODULE 23.0: Visitor Safety and Security

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

Visitor safety and security is the protection of the safety and security of any visitors to your workplace. A visitor may include any person who is not an employee (e.g. customers, suppliers, sale representatives). Visitors do not include contractors who are expected to follow the contractor safety management standard module 25.

WHY IS IT IMPORTANT?

Visitor safety and security is important not only to protect visitors from injury while they are at your workplace, but also includes the protection of your employees from injury caused by unsafe acts of visitors. Establishing a visitor safety and security standard and procedure will also assist in demonstrating due diligence in relation to protecting your organization from liability should a visitor violate your safety rules and injure themselves.

WHAT IS REQUIRED?

- Develop a visitors safety and security standard and procedure that meets the needs of your organization and protects visitors from exposure to any hazards.
- Train your managers, supervisors and employees on the visitor safety and security standard.
- Ensure your visitors are aware of the safety rules and requirements.
- Implement, enforce, monitor and maintain your visitor safety and security standard and procedure.

HOW DO YOU DO IT?

Develop a Visitor Safety and Security Standard and Procedure

The standard and procedure should meet the needs of your organization and be based in the variety of visitors and the level of access required to the areas within your workplace.

Some of the content to include in your safety and security standard and procedure includes the following:

1. Visitor safety and security guidelines (see Appendix A for a sample).
2. A requirement for visitors to be escorted by an employee at all times.
3. Clear signage with directions for visitors to follow for their safety.
4. A requirement for visitors to sign in and out. This will require the development of a visitor sign-in book. An additional option may also include issuing visitors a "Visitor ID Badge" to assist in the identification of visitors.
5. A review of the visitor safety and security guidelines by visitors.
6. Responsibility of visitor escorts to ensure their visitor complies with the visitor safety and security guidelines.
7. Procedure to follow in the event that a visitor is injured.
8. Procedure to follow for visitors in the event of an emergency evacuation.
9. The requirement for manager, supervisor and employee training.

APPENDIX A: Sample Visitor Safety and Security Guidelines

All visitors are asked to review the following Visitor Safety and Security Guidelines.

Welcome! Thank you for visiting our facility. We would like to take this opportunity to share with you our commitment to safety and security.

Your safety while visiting our facility is of prime concern. Therefore, we ask for your cooperation and that you review the following carefully. Should you have any questions, please ask your (ABC Recycling) Company representative.

VISITORS

- Please sign in/out and. It is important for us to know who is visiting within our facilities at all times. This will ensure that you are accounted for in case of an emergency evacuation.
- Stay with your company representative at all times. Your representative is responsible for you at all times during your visit.
- Be aware that any assigned personal protective equipment (PPE) must be worn at all times.

- Be aware that loose clothing or long hair can get caught in the machinery. Scarves, neckties and any loose clothing should be removed or contained; long hair should be tied back.
- Do not touch any equipment unless you have been trained and authorized to do so.
- Be aware that smoking is only permitted in designated smoking areas outside. If needed, ask your company representative to show you where you may smoke.
- Be aware that food and drink are not allowed in certain areas.
- Be aware of slip, trip or fall hazards. We do our best to keep the floors safe, however, please watch your step.
- Report any injury/illness occurring during the visit to your company representative immediately.
- Contractors are required to follow the above items, as well as, the contractor safety management standard.
- In the event of an Emergency Evacuation please follow the instructions of your company representative to ensure your safety.

We are committed to ensuring and promoting safety within our facility. Your awareness and cooperation will help to make your visit SAFE and enjoyable. Thank you for your attention.

HAVE A SAFE AND ENJOYABLE VISIT!

MODULE 24.0: Preventative Maintenance

APPLICABLE STANDARD: Provincial Health and Safety Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

Preventative maintenance is the care and servicing by personnel for the purpose of maintaining tools, machinery, equipment and facilities in satisfactory operating condition. Preventative maintenance provides for systematic inspection, detection and correction of incipient failures either before they occur or before they develop into major defects. It includes tests, measurements, adjustments, and parts replacement, performed specifically to prevent faults from occurring. In the context of health and safety preventative maintenance can also prevent accidents from occurring related to tool, equipment or machinery defect or failure.

WHY IS IT IMPORTANT?

Preventative maintenance is important as it assists in maintaining your facility, tools, machinery and equipment in a safe operating condition to avoid employee injury or property damage. Provincial health and safety legislation also requires employers to maintain machinery, tools and equipment used by employees in safe operating condition. Many equipment specific regulations exist that address the requirement to maintain all tools, equipment and machinery in a safe operating condition.

WHAT IS REQUIRED?

- Become familiar with the applicable equipment specific regulations prescribed by your local health and safety legislation and fire code (i.e. ladders, grinders, powered industrial trucks, conveyors, cranes/hoists, fire protection systems, HVAC systems).
- Become familiar with the manufacturer's preventative maintenance requirements for all the tools, machinery and equipment in your facility.
- Develop a preventative maintenance program that meets the requirements prescribed by your local health and safety legislation, fire code and manufacturer's for your tools, machinery, equipment and facilities.

HOW DO YOU DO IT?

Develop a Preventative Maintenance Program

The preventative maintenance program should include the following:

1. An inventory of all tools, machinery, equipment and facility items that require preventative maintenance.
2. The preventative maintenance standard to be applied to each item on your inventory.
3. A schedule indicating the preventative maintenance frequency (daily, weekly, monthly etc.)
4. A system to record and track for each inventory item activity such as:
 - List of parts to be inspected and maintained
 - Inspectors name and signature
 - Date of inspection
 - Description of the work performed
 - Reporting and recording of deficiencies identified
 - Action taken (who, what, when)
5. Identification of the qualification requirements for personnel carrying out preventative maintenance work.

See Appendix A for a sample Preventative Maintenance Inventory Form.

MODULE 25.0: Contractor Safety Management

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All

WHAT IS IT?

Contractor safety management is a program designed to ensure that contractors you hire to carry out work at your facility are familiar with health and safety requirements, work safely and work in compliance with local health and safety legislation.

WHY IS IT IMPORTANT?

Contract safety management is required in order to establish a process that will manage the health and safety risks related to the use of contractors. The contractor safety management process provides consistent direction for managing contractor safety, and helps protect your employees and contractor employees from workplace injury and occupational illness, and from losses such as property damage associated with incidents related to the contracted work. From a health and safety law perspective contract employees should be treated as your employees as well as employees of the contract employer and therefore should follow all the health and safety requirements that your employees are required to follow.

WHAT IS REQUIRED?

- Develop a contractor safety management standard and procedure that meets the needs of your organization and protects your employees and contractor employees from injury and illness.
- Train your management team that is responsible for hiring and managing contractor on the standard and procedure.
- Implement, enforce, monitor and maintain your contractor safety management standard and procedure.
- Establish health and safety procedures for contractors working on site.
- Develop health and safety criteria, to be used in the evaluation and selection of contractors to ensure that they are competent, licensed, qualified, and experienced to perform the contracted work.
- Implement a process for effective ongoing communication and coordination between the contractor and your organization which includes the communication of hazards and risks, and the measures to be taken to prevent and control them.
- Establish a process for reporting of work-related injuries, illness, and incidents involving the contractor's workers while performing work for your organization.

- Establish a process to verify that relevant workplace health and safety hazard awareness and training has been provided to contract employees before commencing work and as work progresses.
- Establish a process to verify the supervision of the contractor's employees on site in order to monitor that the contractor's employees follow the required health and safety procedures.

HOW DO YOU DO IT?

Develop a Contractor Safety Management Standard and Procedure

The contractor safety management standard and procedure should include the following:

1. Contract Preparation

Establishing a contract that clearly outlines the health and safety requirements is a critical first step. The contract will establish not only the compensation and insurance coverage requirements but also include minimum liability insurance and the compliance requirements related to health and safety legislation and safety standards specific to the contracted work. The roles and responsibility of the contractor must be clearly defined in the contract document based on the work being contracted.

2. Contractor Selection Process

Contractor selection involves evaluating, selecting, and awarding the work to the most appropriate contractor and ensuring the contractor meets all the health and safety requirements while performing the contracted work. A contractor pre-qualification process that requires contractors to provide information related to their health and safety program and practices should be established to allow you to select the best contractor for the job. The selected contractor should be able to meet the same health and safety standard that your organization has established. A recommend practice is to have the contractors senior manager sign a health and safety declaration stating their commitment to comply with all the health and safety requirements of your contract and the law.

3. Contractor Health and Safety Orientation

Prior to the start of any work, all contract employees working at your organization should be provided with a health and safety orientation to your organization to review items such as your health and safety policy, expected safe work practices, accident reporting, housekeeping, use of personal protective equipment, first aid, emergency evacuation and security. The use of a contractor health and safety orientation checklist which is completed and signed-off by each contract employee will document your due diligence should a serious accident occur.

4. Contractor Monitoring and Enforcement

Your company representative responsible for the contractor must regularly monitor the contractor's health and safety performance, and document the results of the monitoring activity. Monitoring frequency should be based on the nature of the risk related to the work being carried out by the contractor and any indication of compliance problems by a contractor. During monitoring any non-compliance with your health and safety requirements must result in verbal and documented warnings and if necessary, removal of the contractor from the site.

5. Post Contract Health and Safety Performance Evaluation

At the completion of a contract, a contractor's health and safety performance should be reviewed and evaluated by your company representative in order to determine the overall level of health and safety compliance and the possibility of awarding the contractor any future work.

MODULE 26.0: Purchasing and Change Management

APPLICABLE STANDARD: Provincial Health and Safety Legislation, CSA Z1000-06
Occupational Health and Safety Management

EMPLOYEES AFFECTED: All

WHAT IS IT?

The purchasing and change management standard is designed to identify, assess and ensure the control of health and safety hazards associated with:

- the purchasing of products, supplies, tools, equipment, raw materials and other goods
- any changes that are made to the workplace or process

WHY IS IT IMPORTANT?

The purchase of products, supplies, tools, equipment, raw materials and other goods by your organization may introduce health and safety hazards which can eventually lead to employee injury or illness.

In addition, changes that are made to the workplace or process such as; relocation or installation of equipment or machinery, changes to work procedures, organizational structure, staffing, products, services, clients, suppliers and even workplace layout may also introduce health and safety hazards which can eventually lead to employee injury or illness.

A health and safety hazard assessment as outline in *Module 3 Baseline Hazard and Health and Safety Program Assessment* prior to any purchase or change will assist in the identification, assessment and control of health and safety hazards associated with a purchase or a change.

A health and safety hazard assessment may also restrict the use of products, supplies, tools, equipment, raw materials and other goods or a change occurring in the event that is determined that the health and safety risk is too high and cannot be adequately controlled.

With the advent of new purchases or changes also comes the need to review the impact of health and safety legislation or other standards/codes that you will need to comply with.

WHAT IS REQUIRED?

- Develop a purchasing and change management standard and procedure that meets the needs of your organization and the requirements of your local health and safety legislation.

- Train all employees authorized to make purchases and changes within your organization on the standard and procedure.
- Implement, monitor, enforce and maintain your purchasing and change management standard and procedure.

HOW DO YOU DO IT?

Develop a Purchasing and Change Management Standard and Procedure

The purchasing and change management standard and procedure should include the following:

1. Pre-Purchase/Change Review

Employees authorized to purchase products, supplies, equipment, raw materials and other goods will determine if an item may create a health and safety hazard.

Employees authorized to direct a change will determine if the change has a potential for introducing any health and safety hazard.

In some cases the result of this review may determine that the actual or potential hazards related to the purchase or the change are so significant that the purchase or the change will not be carried out.

See Appendix A for a Sample Pre-Purchase/Change Health and Safety Review Form.

2. Health and Safety Hazard Identification and Assessment

All the identified health and safety hazard from the pre-purchase/change review process must be documented and analyzed in or to determine if the purchase or the change should be approved based on the level of risk and ability to control the risk.

The same process outlined in *Module 3 Baseline Hazard and Health and Safety Program Assessment* should be used to assist with the identification and assessment of the hazards.

3. Hazard Control Measures Review and Implementation

All purchases or changes that have undergone the health and safety hazard identification and assessment process will then require control measures to be implemented for each hazard that was identified.

The controls measure review should be conducted collaboratively by the person requesting the purchase or proposing the change, a health and safety professional and employees that may be impacted by the purchase or change.

The same process outlined in *Module 3 Baseline Hazard and Health and Safety Program Assessment* should be used to assist with the determination of what hazard control measures will need to be implemented.

The identified and agreed to control measures should then be implemented prior to arrival of the products, supplies, equipment, raw materials and other goods or the implementation of the change. All the implemented control measures should be documented, monitored, enforced and maintained.

4. Purchasing/Change Approval

The results of the pre-purchase/change reviews are documented on the Pre-Purchase/Change Health and Safety Review Form. Documentation such as the results of the health and safety hazard identification and assessment and the hazard control measures review and implementation should also be attached to the form.

The completed form should be signed-off indicating that the purchase/change was approved and the form should be maintained in a central file.

APPENDIX A: Sample Pre-Purchase/Change Health and Safety Review Form

Pre-Purchase H&S Review	<input type="checkbox"/>
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Pre-Change H&S Review	<input type="checkbox"/>
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Person requesting purchase or directing the change		Date Completed
Description/Intended Use of Item(s) to be Purchase or Description of Change		
Location of Workplace		
Consultation: Has Health and Safety staff been consulted? (list those consulted)		
Name (Please Print)		Date
You may also need to consult with other employees prior to the purchase/change.		
Name (Please Print)		Date
Health and Safety Considerations	Yes-No-N/A	If Yes, give details
Have you identified any legal or other requirements including Standards that apply? If Yes list all legislation, standards and codes of practice.	Yes-No-N/A	
Are potential emergency procedures required?	Yes-No-N/A	
Equipment/Supplies/Process		
Has an analysis of the technical data and other information relevant to H&S been completed?	Yes-No-N/A	
Has a hazard risk assessment been completed? (attach the completed form)	Yes-No-N/A	
Are all risks adequately controlled? If Yes no further action is required?	Yes-No-N/A	
Have all issues pertaining to maintenance safety been evaluated and addressed?	Yes-No-N/A	
Are training, work practice and supervision changes required? If yes identify the requirements	Yes-No-N/A	
Are there licensing/registration requirements for the item/change, and are permits to operate and/or operator certification required?	Yes-No-N/A	

Health and Safety Considerations	Yes-No-N/A	If Yes, give details
Are instruction manuals and information about safe use required?	Yes-No-N/A	
Are there any H&S signage requirements for the item/change?	Yes-No-N/A	
Has the workplace layout, access and storage been considered?	Yes-No-N/A	
Are there ergonomic/manual handling hazards?	Yes-No-N/A	
Is protective equipment (PPE) required?	Yes-No-N/A	
Are there likely to be any physical hazards?	Yes-No-N/A	
Chemicals/Substances:		
Has the current MSDS been seen and reviewed?	Yes-No-N/A	
Is this a non-hazardous substance – no further action?	Yes-No-N/A	
Are the risk adequately controlled in accordance with MSDS– no further action?	Yes-No-N/A	
Has a hazard risk assessment been completed (attach the completed form)	Yes-No-N/A	
Are controls required and can they be provided?	Yes-No-N/A	
Is this a dangerous good?	Yes-No-N/A	
Have waste management and disposal requirements been reviewed and addressed.	Yes-No-N/A	
Is safe storage available for the hazardous substance(s)?	Yes-No-N/A	

	Purchase Order	
Equipment/Supplies	Must include a requirement that the item complies with Health and Safety legislation and relevant applicable standards.	Yes-No-N/A
Substance	Must include a requirement for the supplier to provide the appropriate MSDS and notification of any change in formulation.	Yes-No-N/A

Persons authorizing the purchase of the new item or change		
Name and Title: (Please Print)	Signature:	Date:

This completed form may be used for repeat purchases and reviewed if required

MODULE 27.0: Workers' Compensation Management and Return to Work

APPLICABLE STANDARD: Provincial Compensation Legislation

EMPLOYEES AFFECTED: All

WHAT IS IT?

A workers' compensation management and return-to-work program is a means of controlling the claims process when one of your employees has a work-related injury or illness. It involves techniques for getting claims reported, managing the claims, and getting injured employees back to work as soon as safely possible.

WHY IS IT IMPORTANT?

In the competitive world of scrap processing, the ability to control costs can be the difference between prosperity and failure. Yet, one area of variable expense many companies overlook is that of workers' compensation costs. Over the past years, workers' compensation costs in Canada have spiraled from an incidental budget item to a major expense.

Compensation claims management is also legislated within each province by a provincial compensation act which is administered by a compensation board.

There are two sides to any health and safety program. Most employers place a great deal of emphasis on accident and injury prevention, which is often reinforced through communication, training, and general awareness programs. The post-injury side of loss control is cost containment, and unfortunately employers all too often allow the "system" to take control at this point. Here are a few facts about the money that can be saved through effective workers' compensation management and return to work.

- Prompt (within 24 hours) reporting of a workers' compensation claim can reduce average costs by 44%.
- 85% of injured workers return to work within two months. The remaining 15% account for 75% of the total dollars spent in the workers' compensation system. (Source: AIA/AISG.)
- There is only a 50% chance that an injured worker who is away from work for more than six months will ever return. (Source: AIA/AISG.)
- Return-to-work programs have proven effective in aiding in quicker recovery, and reducing related costs, such as rehabilitation expenses, therapy and surgical expenses, and days lost.

WHAT IS REQUIRED?

- Develop a claims management standard and procedure that meets the needs of your organization and the requirements of your local compensation claims legislation.
- Develop a written company philosophy indicating the importance of the employee's return to work.
- Appoint a Return-to-Work Coordinator.
- Develop a list of preferred physicians or designated managed care facilities for referral of injured employees.
- Train and certify employees in CPR and first aid.
- Implement accident investigation and reporting procedures.
- Develop a standard system for reporting claims.
- Develop descriptions of jobs and their physical demands for use in identifying transitional work.
- Communicate and educate employees and supervisors about the return-to-work program before injuries occur.
- Intervene early and stay in touch with the injured employee.
- Establish a system to track results.

HOW DO YOU DO IT?

Develop a written company philosophy

Your policy or philosophy should convey an "I care" (or "we care") attitude. It should be set up to treat employees fairly, in a caring way, to reinforce their importance to the company. Many studies have concluded that the employee's perception of the workplace can have a big impact on how quickly he or she returns to work after any injury.

Communication of a policy does not stop with the written statement. Actions speak louder than words. It is imperative that all management, including senior managers, supervisors, etc., exhibit an "I care" attitude in everything they do. Nothing hurts the success of a program more than a manager who exhibits an unsafe work ethic or negative attitude. The manager who is positive, shows concern for employees, and enlists the assistance of employees goes a long way in promoting a successful program.

Appoint a Return-to-Work Coordinator

To ensure the program is properly implemented, it is necessary to designate one person with the responsibility for coordinating workers' compensation claims. The Return-to-Work Coordinator must be able to skillfully communicate with injured

employees, managers, supervisors, physicians and other health care providers, insurance representatives, and unions if applicable. This does not have to be a full-time position, but it is important that it be handled by one person.

Designate preferred physicians or managed care facilities

Workers' compensation laws vary from state to state. Understand the laws in your state and exercise the controls allowed. Even where the injured employee has a right to use his or her own physician, with proper communication, most injured employees are willing to use a preferred physician or managed care facility on the company's referral. A managed care facility that specializes in occupational injuries and rehabilitation is ideal. Individual physicians should be familiar with workers' compensation and support the concept of conservative management with continued work whenever practical. Your workers' compensation insurance company can review the procedures regarding physician referral for your state as well as identify appropriate medical providers.

You should talk with the designated care providers before any work injuries occur. Make sure they understand you are committed to getting the employee back to work.

Train and certify employees in CPR and first aid

Clearly, a major step in cost containment is to keep employees at work. Treating minor injuries using trained (Red Cross certified) employees substantially reduces costs and returns employees to their regular jobs quickly with the perception they are cared about. Regardless of cost, it is also important to recognize when the injury is serious enough to warrant professional attention.

Implement accident investigation and reporting procedures

Effective accident investigations identify the root causes of accidents. Once the root causes are identified, supervisors and managers can take the proper corrective actions to prevent future occurrences. Documenting the specific corrective actions taken, as well as recommending additional corrective actions to management, is crucial to reducing frequency, severity, and costs of accidents.

Develop a standard system for reporting claims

A tremendous cost saving can be realized through prompt reporting of workers' compensation claims. The faster you can notify your insurance company's claim professionals, the sooner they can start handling the case. Most insurance carriers now offer toll-free numbers for claim reporting, and some offer Internet claim reporting. Using either of these tools will greatly reduce reporting time and associated costs.

Develop descriptions of jobs and their physical demands

It is important to have a list of potential transitional jobs available to the injured worker. This is not as difficult as it sounds. The bottom line is that you want to identify some basic jobs that a worker with medical restrictions could do while he or she recovers to full capacity. Doctors are more likely to release a worker to "light duty" if they know there is work available.

Choosing transitional employment involves looking at the tasks involved in a job. It may encompass anything from reducing hours, to identifying tasks with gradually increasing effort, to making permanent modifications. The important thing to remember is that when the employee is back at work with some degree of productivity, he or she is also on the road to recovery. Appendix A provides more information on task analysis.

Communicate and educate

Supervisors should understand the workers' compensation laws and how much a continuing claim can cost. Supervisory support is key! Supervisors must not take a negative attitude toward an injured employee on modified or restricted work. They must understand that the company's return-to-work program is a temporary alternative aimed at controlling workers' compensation costs.

Employees should be educated as to the procedures to follow when an accident does occur. They should also be made aware of the company's return-to-work program and the benefits it offers.

Intervene early and stay in touch with the injured employee

Researchers have found that workers who are injured and then ignored may perceive that the only way to get the employer's attention is to press for a retaliatory settlement. The claimant who engages an attorney is less likely to return to work. Therefore, it is vital to contact the injured employee the first day off work and at regular intervals until he or she returns to work. Good employer-employee relations is a significant element in the prevention of disability dependence.

Contact can be made by the owner, immediate supervisor, health and safety director, human resources representative, and/or co-workers. Regardless of who makes contact, it is important that the contact be positive. Let the employee know he or she is missed and needed back. It is also helpful to let the employee know how things are going at the plant. This makes the employee feel a valued part of the company and maintains his or her interest in returning. Some questions that can be asked to show concern for the injured employee include:

- How are you?
- Is there anything we can do?
- When do you see the doctor again?
- Are you having any problems or concerns that we can help with?

- Do you have any idea of when you will be able to return?

Sending a get-well card or personal note will also convey the company's concern about the injured employee.

Appendices B and C provide materials to assist in making and tracking contacts with injured employees.

Establish a system to track results

As with any health and safety program, it is necessary to develop a system to track results. This system allows you to see if your program is working or identify areas where improvement is needed. It is also a great way to stay on top of your insurance company to make sure your claims are getting the attention they need.

WHERE CAN I GET MORE INFORMATION?

Your local compensation board will have information to assist you in setting up an effective claims management program.

APPENDIX A: Task Analysis for Job Descriptions

Task analysis is the process of systematically assessing all elements of a given job, including the workstation design and job functions. During the task analysis, problem jobs and the risk factors associated with them may be used to identify possible modified or alternative work (light duty).

A copy of the employer's job description listing the essential functions of the job should be attached to the task analysis form when submitted to the treating health care provider. A job description should have been developed to identify the physical demands of the job.

Here are some key questions for identifying job components:

- What activities are involved?
- What are the physical functions required?
- How often are they performed?
- For how long a duration are they performed?
- What is a typical daily schedule?
- What equipment and tools are required?
- How are tools used?
- What skills are required?
- How much does the object being lifted weigh?

This kind of analysis provides a basis for matching job requirements with physical capabilities. A written summary of the task analysis can be used effectively by the treating health care provider in return-to-work planning. Such a breakdown of factors is useful to the physician in determining work readiness and work restrictions.

Following is an example of a form to be used for task analysis.

TASK ANALYSIS

Employer _____ Employee _____

Employer address _____

Telephone # _____

Complete the following information to describe the employee's job at the time of injury:

Job title _____ Usual job? Yes ____ No ____

Department _____ Supervisor _____

General description or purpose: _____

Work schedule:

Number of hours/day _____

Number of days/week _____

Breaks: From _____ to _____; from _____ to _____

Overtime (hours/week) _____

Description of tasks (use additional page if needed):

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Tool and equipment (include weight and number of hands necessary to operate):

Describe special demands: _____

Physical demands

Complete the following to show the *maximum* physical demand for all of the tasks listed above. For example, if Tasks 1 through 4 require no bending but Task 5 requires occasional bending, the overall job must be rated as requiring occasional bending.

JOB REQUIRES	Continuous <i>67%–100% of the day</i>	Frequent <i>34%–66% of the day</i>	Occasional <i>1%–33% of the day</i>
Bending			
Kneeling			
Squatting			
Climbing			
Standing			
Walking			
Sitting			
Lifting/reaching above shoulder height			
Lifting/reaching between shoulder and hip height			
Lifting/reaching below hip height			
Driving			
Fine motor skills			
Climbing stairs			
Climbing ladders			
Pushing			
Pulling			

Job requires:

Maximum lifting/carrying of _____ lb.

Frequent lifting/carrying of _____ lb.

Does job require repetitive motions? (check if applicable)

	Wrist	Elbow	Shoulder	Ankle
Right				
Left				

Hand coordination movement required	Right		Left		Frequency
	Yes	No	Yes	No	
Major hand					
Fine manipulation					
Gross manipulation					
Simple grasping					
Power grasp					
Hand/wrist twisting					

Completed by _____

Title _____ Date _____

APPENDIX B: Injured Employee Contact Guide

It is not uncommon for an injured worker to feel isolated and concerned about the future. Periodic contact, made by a company representative whom the employee is familiar with, can do much to allay these concerns and prevent small irritations from growing into a litigious confrontation.

When to make contact

Initial contact should be made within three days of injury. Follow-up contact should be made weekly for the first four weeks after the injury and then biweekly or as determined by circumstances. If the employee returns to work, the supervisor should periodically check on how he or she is doing during the course of the work week.

Contact discussion

1. Inquire about how the injured employee is doing. Listen, and show genuine concern; the employee may reveal some minor stresses that you can help with.
2. Ask if he or she has any questions regarding benefits, return to work, etc. You should not attempt to answer benefit questions, but rather let the employee know you will see that someone follows up with answers. Refer any questions to your Return-to-Work Coordinator.
3. State that the employee's presence will be missed, as he or she is a valuable part of the work force team. Express your wishes for a speedy recovery.
4. Provide news about the company, department, or co-workers to reinforce your point that the employee is still part of the team.
5. Send a get-well card.

MODULE 28.0: Operation-Specific Health and Safety Guidelines

The scrap recycling industry is not an inherently dangerous business. It is entirely possible to perform every job in such a way as to avoid injury. The potential for injury, however, is quite high, requiring a full commitment of resources and attention to prevent accidents from occurring.

Thus far, the CARI Health and Safety Manual has described administrative steps necessary to build an effective health and safety program. In the pages that follow, the manual describes health and safety concerns unique to specific pieces of equipment often found in recycling operations.

Nothing in the pages that follow should be considered to be a replacement for manufacturer-specific health and safety instructions—they are presented for purposes of general guidance only.

Certain minimal health and safety guidelines always apply.

Irrespective of the specific requirements/recommendations presented in the Operation-Specific Health and safety Guidelines, CARI firmly believes that certain minimum health and safety standards apply to all recycling facilities all the time. These standards include:

- Consistent application of Lockout/Tagout principles during all operations in which the unexpected start-up of machinery may pose a hazard. We encourage you to familiarize yourself with the regulatory requirements and the CSA-Z460-05 Control of Hazardous Energy - Lockout and Other Methods.
- Use of proper personal protective equipment (PPE) at all times. In the absence of unusual mitigating circumstances, CARI believes that all recycling facility personnel should wear hard hats, health and safety glasses and steel toe/steel shank work boots while in the vicinity of scrap processing operations.
- Job-specific training on any and all hazards to which workers may be exposed, such training to be conducted before the hazard is encountered for the first time.

Automobile Compressor

Definition: A machine the crushes an automobile hulk by means of a hydraulically or mechanically driven roller or drop crushing device.

Potential Hazards:

Dust
High-velocity flying metal fragments
Moving parts
Noise
Oil, motor or hydraulic fluids
Pinch points
Sharp objects/edges
Swinging/suspended material

Guarding/Shielding:

All shielding must be designed and constructed to stop high-velocity flying metal fragments, and positioned in such a manner as to protect any employee for whom such flying fragments might pose a hazard. This includes the crane operator's cab.

Operators of equipment-lifting devices should be sufficiently distant to prevent being struck by a swinging or shifting load.

Operational switches must be guarded in such a way as to prevent accidental activation.

Power transmission parts such as gears, shafts and belts must be guarded to prevent accidental contact.

Personal Protective Equipment:

Hard hat*
Health and safety glasses*
Steel toe/steel shank work boots*
Gloves
Hearing protection
*minimum protection

Health and Safety Procedures:

You must develop written procedures for the operation of the equipment, based on manufacturer's recommendations.

You must ground motors and other electrical equipment to prevent electrical shock or ignition of flammable or combustible materials.

You must designate a health and safety zone where workers may stand while the equipment is being operated.

You must keep suspended loads away from buildings, walking/working areas and power lines.

You must keep emergency-stop controls within reach of operators at all times.

Ground workers and crane/material handler operators must maintain positive contact at all times, whether visually, or via radio or other audible device.

You must establish and document procedures to ensure that fuel tanks are empty, and that the vehicles do not contain other hazardous materials such as compressed gas cylinders.

You must designate the use of non-sparking tools and pumps for removing gasoline from tanks and for disassembling the tanks themselves.

Balers

Definition: A machine used to compress scrap into bales by means of chain-driven or hydraulically-powered rams and hoppers.

Potential Hazards:

Aerosolized particles
Dust
Electric shock
Fire
Flying/protruding parts
Moving hydraulic parts
Noise
Oil, motor, hydraulic fluids
Pinch points
Sharp objects/edges
Slippery walking/working surfaces
Sprain/strain injuries
Swinging/suspended material

Guarding/Shielding:

Point of operation guards must prevent a worker from having any part of his/her body in the machine's danger zone during the operating cycle.

Fixed shielding with overhead protection must be installed when the operating station is situated near overhead hazards.

Power transmission parts such as gears, shafts, belts or chains must be guarded to prevent accidental contact.

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots*
Gloves as needed
Respirator as needed
*minimum requirements

Health and Safety Procedures:

Prior to performing any maintenance operation, including clearing a jam, the baler and all equipment directly associated with it, including conveyors, rams and any other moving parts, must be locked and/or tagged out to prevent inadvertent activation.

Provide emergency stops that are easily accessible from any point along the operating line, including not only the baler itself, but also any conveyor mechanism that feeds it. Balers and conveyors should be interlocked, such that stopping one automatically stops the other.

Sufficient safe clearances must be allowed between machinery and adjacent aisles or passageways. Permanent aisles and passageways must be clearly marked.

Motors and other electrical equipment must be grounded.

All walking/working surfaces must be kept clean and dry.

Where the vertical distance between walking or working surfaces exceeds four feet (48 inches), railings or fall protection equipment must be utilized.

Designate and enforce a health and safety zone, the area in which the operator of the equipment must be while the equipment is in use.

Keep suspended loads clear of walking/working areas, power lines, obstructions, buildings, and other hazardous locations.

Provide for suitable drainage in baling pit or chamber.

Operators of the machinery and of material handling equipment (cranes, material handlers, skid steers, loaders, etc.) must maintain positive contact with each other at all times, either visually, or by radio or other audible device.

Battery Breaking

Definition: Process by which casings of electric storage batteries are sawed or sheared open in order to remove plates, terminals and solution.

Potential Hazards:

Aerosolized particles
Corrosive liquids
Hazardous vapors
High-velocity flying parts
Flammable/explosive gas (hydrogen)
Noise
Sharp objects/edges
Slippery walking/working surfaces

Guarding/Shielding:

Power-driven saws, cleavers, or shears used to cut battery casings must be guarded at the point of operation in such a way as to avoid injury caused by contact with moving parts, and impact from flying debris.

Where splash hazards exist, shielding must be in place.

Protective Equipment:

Hard hats*
Health and safety *goggles**
Face Shield*
Corrosive-resistant steel-toe/steel shank work boots*
Corrosive-resistant work gloves*
Respirator with acid gas cartridge
Hearing protection
*minimal requirement

Health and Safety Procedures:

Battery breaking operations likely will trigger a number of regulations. You should familiarize yourself with the standards for lead, arsenic, antimony, arsine, stibine, and sulfuric acid.

If located indoors, the area used for battery breaking must have forced air ventilation exhausted to a bag house or other emission control device.

Emergency showers must be readily accessible and clearly marked in areas where splashes could occur.

Sufficient safe clearances must be allowed between machinery and adjacent aisles or passageways. Permanent aisles and passageways must be clearly marked.

Motors and other electrical equipment must be grounded.

All walking/working surfaces must be kept clean and dry.

Where the vertical distance between walking or working surfaces exceeds four feet (48 inches), railings or fall protection equipment must be utilized.

Designate and enforce a health and safety zone, the area in which the operator of the equipment must be while the equipment is in use.

Keep suspended loads clear of walking/working areas, power lines, obstructions, buildings, and other hazardous locations.

Briquetting

Definition: Process by which metal turnings, borings, wire, or cable is compressed by a hydraulic ram into a briquette. The process may include heating pre-compressed metal in a rotary kiln to remove water, grease or oil.

Potential Hazards:

Aerosolized particles
Cutting fluids
Electric shock
Explosive atmosphere
Fire
Flammable gas/vapor
Hazardous fumes
High-velocity flying metal fragments
Moving hydraulic parts
Noise
Oil or hydraulic fluids
Pinch points

Guarding/Shielding:

Point of operation guards must prevent a worker from having any part of his/her body in the machine's danger zone during the operating cycle.

Fixed shielding with overhead protection must be installed when the operating station is situated near overhead hazards.

Power transmission parts such as gears, shafts, belts or chains must be guarded to prevent accidental contact.

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots*
Gloves as needed
Respirator as needed

*minimum requirements

Health and Safety Procedures:

Prior to performing any maintenance operation, the briquetter and all equipment directly associated with it, including conveyors, rams and any other moving parts, must be locked and/or tagged out to prevent inadvertent activation. The same applies to fuel tanks and valves.

Briquetting operations may trigger a number of OSHA regulations. You should familiarize yourself with the standards for lead, copper, aluminum and magnesium oxide.

Provide emergency stops that are easily accessible from any point along the operating line, including not only the briquetter itself, but also any conveyor mechanism that feeds it. Briquetters and conveyors should be interlocked, such that stopping one automatically stops the other.

Sufficient safe clearances must be allowed between machinery and adjacent aisles or passageways. Permanent aisles and passageways must be clearly marked.

Motors and other electrical equipment must be grounded.

All walking/working surfaces must be kept clean and dry.

Where the vertical distance between walking or working surfaces exceeds four feet (48 inches), railings or fall protection equipment must be utilized.

Designate and enforce a health and safety zone, the area in which the operator of the equipment must be while the equipment is in use.

Keep suspended loads clear of walking/working areas, power lines, obstructions, buildings, and other hazardous locations.

Operators of the machinery and of material handling equipment (cranes, material handlers, skid steers, loaders, etc.) must maintain positive contact with each other at all times, either visually, or by radio or other audible device.

If operating a kiln:

Main fuel shut-off valve must be located away from the kiln, easily accessible and clearly marked.

Post at the entrance of the building that houses the kiln the type of fuel that is being used.

Continuously monitor for fuel gas leaks.

Where kiln ducts or stacks pass through combustible walls, floors, or roofs, noncombustible insulation or clearance or both must be utilized to insure that surfaces temperatures never exceed 160 degrees F.

Metal frames of the kiln must be grounded.

Gas-fired kilns must automatically shut down if the pilot light is extinguished.

Cast Drop Breaking

Definition: Process in which a steel ball is dropped on castings from a suspended magnet

Potential Hazards:

Aerosolized particles
Falling metal pieces
Falling steel ball
High-velocity metal fragments
Noise
Motor oil or hydraulic fluid
Sharp objects, edges
Swinging/suspended material

Guarding/Shielding:

Cast breaking areas must be shielded sufficiently to stop high-velocity flying metal fragments, or positioned in such a way that fragmentation cannot pose a hazard to people or property.

The crane operator's cab must be shielded in such a way as to prevent high-velocity flying fragments from posing a hazard.

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots*
Gloves as needed
Respirator as needed
*minimum requirements

Health and safety Procedures:

Operators and managers must familiarize themselves with regulations for fall arrest and fall protection. Where walking or working surfaces are elevated four feet or higher from adjacent surfaces, standard railings or personal fall protection devices must be utilized.

Designate an area where workers may stand safely while cast breaking operations are being performed, and forbid all access to all personnel to non-safe areas.

When workers are in the danger zone (as defined by areas other than the safe area), the drop ball must remain in direct contact with the ground.

Operators of the machinery and of material handling equipment (cranes, material handlers, skid steers, loaders, etc.) or the device handling the drop ball must maintain positive contact with each other at all times, either visually, or by radio or other audible device.

Conveyor

Definition: Machine designed to transport material either horizontally or vertical by means of a moving surface that passes over rollers.

Potential Hazards:

Chemical solutions

Dust

Electric shock

Flying/protruding metal

Moving hydraulic parts

Noise

Oil/hydraulic fluid

Pinch points

Sharp objects/edges

Slippery walking/working surfaces

Guarding/Shielding:

Point of operation guards must prevent a worker from having any part of his/her body in the machine's danger zone during the operating cycle.

Fixed shielding with overhead protection must be installed when the operating station is situated near overhead hazards.

Power transmission parts such as gears, shafts, belts or chains must be guarded to prevent accidental contact.

Visual and/or audible warning signals must be installed to warn of impending start-up of the conveyor. Such warning device must provide at least five seconds of warning before the machinery actually begins to operate.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

Oils resistant gloves, aprons or clothing, as needed.

*minimum requirements

Health and Safety Procedures:

Prior to performing any maintenance operation, the conveyor and all equipment directly associated with it, including any other moving parts, must be locked and/or tagged out to prevent inadvertent activation. The same applies to fuel tanks and valves.

Provide emergency stops that are easily accessible from any point along the operating line, including not only the conveyor itself, but also the equipment it serves. Conveyors and the equipment they serve should be interlocked, such that stopping one automatically stops the other.

Sufficient safe clearances must be allowed between machinery and adjacent aisles or passageways. Permanent aisles and passageways must be clearly marked.

Motors and other electrical equipment must be grounded.

All walking/working surfaces must be kept clean and dry. Special attention must be given to slipping and tripping hazards.

Where the vertical distance between walking or working surfaces exceeds four feet (48 inches), railings or fall protection equipment must be utilized.

Designate and enforce a health and safety zone, the area in which the operator of the equipment must be while the equipment is in use.

Keep suspended loads clear of walking/working areas, power lines, obstructions, buildings, and other hazardous locations.

Operators of the machinery and of material handling equipment (cranes, material handlers, skid steers, loaders, etc.) must maintain positive contact with each other at all times, either visually, or by radio or other audible device.

Loose clothing such as hooded sweatshirts, baggy shirts or pants, ill-fitting gloves or unbuttoned sleeves must never be allowed in the vicinity of operating conveyors. Similarly, dangling equipment such as employee identification or radio equipment on straps may never be permitted in the vicinity of operating conveyors.

Long hair must be fully contained before any employee is allowed to approach moving conveyor equipment.

Standing or walking on any conveyor equipment must be prohibited.

Climbing over, down, or around sorting chutes that are connected to conveyor equipment is prohibited.

Sorters must be alerted prior to moving sorting bins.

Front End Loader

Definition: Motorized vehicle designed for moving material with a hydraulically controlled shovel or bucket.

Potential Hazards:

Dust
Exhaust fumes
Falls
Falling materials
Fire
Rollover
Fuel vapors
Moving parts
Noise
Pinch points
Oil, fuel, motor and hydraulic fluids

Guarding/Shielding:

Operators cab should be guarded or shielded against flying materials impact
Moving mechanical components should be guarded to prevent accidental contact
End loaders used to charge a furnace should have either health and safety glass or wire mesh shield in front of the operator and a solid roof
Fuel tanks, hydraulic lines, and valves should be guarded to prevent impact by materials, objects, equipment or people

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots*
Gloves as needed
Respirator as needed
*minimum requirements

Health and Safety Procedures:

Lockout/Tagout procedures must be in place for any equipment maintenance activity

Steps or ladders to gain access to cab must be slip resistant, with handholds installed

Written daily inspection procedures and checklist must be completed before daily use

When unattended, vehicle should be turned off, brakes set, bucket/shovel on ground, and gears engaged. Vehicle must only be left on level ground.

If backup alarm not installed, operator must sound horn when backing vehicle

No one will be allowed to ride on vehicle anywhere but in designated seat(s) equipped with seat belt.

Operator must slow and sound horn when crossing roads/aisles and other locations where vision might be obstructed.

Bucket/Shovel must never be used as a work platform.

Vehicle must be shut off during any fueling activity.

Fueling can only be performed away from hot areas where sources of ignition might be present.

Areas designated for battery charging or removal and maintenance must have facilities for emergency eye wash, spill control/neutralization, fire protection and protection from other moving equipment or personnel.

Battery charging procedures must be posted at designated area and include,

- Park loader in proper position with brake set;

- Acid should be poured into water, not water into acid;

- Battery compartments and covers should be open during charging to dissipate heat. Vent caps should be functioning;

- Smoking must be prohibited in charging area;

- Precautions must be taken to prevent sparks or sources of ignition near battery charging operations;

- Adequate ventilation must be assured in charging area.

Loader must not be used to unload or load vehicles when people are in the vehicle

Operator must be familiar with overhead clearances between vehicle and power lines, bridges, pipelines, and other overhead structures

Operator must wear seatbelt and obey posted speed limits

Slow moving vehicles must be escorted when travelling on public streets. Escort vehicle must travel behind the loader, with emergency flashers operating

Operator must use three-points of contact when entering or exiting cab

Operator must face equipment when climbing onto or off of the equipment
Operator must not use control levers as handholds
Operator must not jump off vehicle onto ground, scrap materials, or debris.

Operators with potential for exposure to hazardous materials including carbon monoxide, toxic fumes and particulates or nuisance dusts must have their exposure assessed and monitored following the locations written exposure management program. Consult the applicable industrial hygiene guides for current exposure limits, monitoring methods and exposure reduction options.

Forklift operator Checklist

Inspected by: _____ Date: _____	Yes	No	N/A
Is protection (grills, canopies, screens) provided to shield operator from falling or flying objects?			
Is adequate rollover protection provided?			
Are seat belts provided?			
Are only designated qualified operators being assigned to operate this equipment?			
Does the unit have a suitable fire extinguisher?			
Is there an effective working reverse alarm?			
Are moving parts, shafts, chains, sprockets, belts, etc. guarded?			
Is protection against contact with hot surfaces, exhaust, etc. provided?			
Are all screens, guards, shields in place and effective?			
Is a safe means of access to the cab provided (steps, grab bars, non-slip surfaces)?			
Are sufficient lights for night operations provided?			
Are fuel tanks located in a manner to prevent spills or overflows from running onto engine exhaust or electrical equipment?			
Are exhaust discharges from equipment so directed that they do not endanger persons or obstruct the view of the operator			
Are the brakes and emergency brake in proper working order?			
Are inspection records kept available?			

Furnace

Definition: Box or tank type container using high temperature to melt and separate or purify (usually) non-ferrous metals.

Potential Hazards:

- Aerosolized particles
- Burns/ Extreme Heat
- Explosive atmosphere
- Fire
- Hazardous fumes
- Ash

Guarding/Shielding:

- Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes moving parts, and hot surfaces.
- Fuel lines must be guarded to prevent damage.
- Power transmission parts must be adequately guarded.
- Loaders or forklifts used to charge furnace should have health and safety glass or expanded steel in front of operator with a solid roof.

Protective Equipment:

Hard hats*

Health and safety glasses*

Face shield*

Steel toe/steel shank foundry boots with metatarsal guards*

Leather foundry gloves*

Fire resistive clothing*

Respirator as needed

Hearing protection as needed

*minimum requirements

Health and Safety Procedures:

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/servicing.
- Designate a safe zone around furnace to prevent burns to pedestrians.
- Keep flammables & combustibles away.
- Floor areas adjacent to furnace must be maintained clean and dry and free of trip hazards.
- If indoors, furnace should have forced air ventilation to outside or to bag house or other emission control device. Exhaust ducts should not discharge near doors, windows, or other air intakes.
- Determine, through air monitoring, whether use of respirators is required.
- Fire extinguishers should be appropriately placed, well labeled, with unobstructed access.
- Post emergency shut-down procedures.
- Regularly check for fuel gas leaks.
- Main fuel shut-off must be located away from furnace, easily accessible and labeled.
- Post type of fuel in use at building entrance.
- Regularly monitor temperature readings.
- Train workers on unacceptable materials in furnace including closed containers, magnesium, nitrates, and volatile materials.
- Gas-fired units must have an auto health and safety shut-off valve that cuts fuel flow if pilot is extinguished.
- High volume water supply and hose should be near furnace and inspected regularly.
- Stacks or ducts passing through walls must be properly insulated or clearance provided.
- Post warning signs indicating area of hazardous operation.
- Make sure skimmers, rakes, ladles and other tools are hot and dry before each use.
- Make sure molds are dry and preheated before pouring molten metal in them.
- Furnace should have automatic or manually controlled ventilating fan.
- Workers should have access to adequate supply of drinking water.
- When melting flammable metals such as magnesium a Class D fire extinguisher should be immediately available. Do not use water on flammable metals.

Crane: Overhead/Gantry

Definition: Overhead rail (bridge) mounted horizontally travelling crane (trolley) with vertical hoist lifting and moving capability of designated capacity with hook, sling, magnet, or bucket lifting mechanism(s).

Potential Hazards:

Falling Materials

Slips/trips/falls during cab access and inspection

Electric shock

Lacerations/hand injuries during cable/sling inspection

Noise

Swinging or suspended materials

Flammable liquids/vapors

Oil and hydraulic fluids

Moving parts/pinch points

Guarding/Shielding:

Cab is enclosed and often at heights requiring caged access ladder if over 20-feet or other suitable safe stairway and platform. Maintenance activity and inspections will require fall protection system if unprotected at heights.

Rail/wheel assemblies, if accessible by personnel during operation, require guarding to cover pinch points. Sweeps or similar rail/wheel interface protection may also be required if accessible by personnel.

Bridge or trolley require bumpers at each end.

Hoisting rope/chain may require guards at drum.

Accessible moving parts including gears, sprockets, reciprocating equipment and similar will require guarding if accessible.

Crane Operator should be sufficiently removed and protected from possible flying materials or swinging loads.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

All electrical components must be grounded per electrical code requirements.

All equipment maintenance and inspection requirements must use Lock-Out/Tag-Out procedures by trained and authorized workers.

Elevated platforms or walking surfaces must have appropriate guardrails, mid-rails and toeboards, and be constructed of suitable materials and strengths.

Load lifting devices must be inspected regularly following suggested checklist attached.

Minimum crane clearances must include 3 inches overhead and 2 inches laterally.

Outdoor cranes must be equipped with a visible or audible wind velocity detector.

Items stored in the cab must be secured at all times.

Rated load limit of crane must be clearly marked on both sides, and rated load limits of hoist or load blocks must also be marked and visible from ground or floor.

Except for floor operated cranes, a gong or other warning signal must be provided for each crane equipped with a power travelling mechanism.

When starting the bridge and when the load or hook approaches near or over personnel the warning signal must be sounded.

Follow inspection requirements of attached form.

Designate a safe zone where workers can stand while crane is operating, and post signs indicating these safe zones and restricted areas.

Portable fire extinguisher must be mounted in the cab.

Audible signals must be described on posted sign(s).

Visual signals must be established and used by hook-up workers and crane operators.

Ground workers and crane operator must have communication method.

Crane operator must have unobstructed view of operations area at all times.

Crane must not be used to load containers or trucks unless all individuals are out of the vehicle cab and in a designated safe area.

Crane Inspection Checklist (daily inspection)

Inspected by: _____ Date: _____	Yes	No	N/A
Check to see if crane or hoist has been locked-out/tagged-out			
Check that all motions agree with control device markings			
Verify proper brake operation – all motions			
Visually inspect hook for signs of deformation, wear, and health and safety latch operation			
Verify proper operation of hook latch assembly			
Visually inspect wire rope, load chain, or other lifting aids to assure no damage or excess wear (see separate sling checklist)			
Verify proper operation of upper limit switches			
Visually inspect for oil leakage			
Check that functionally all mechanisms for proper operation, sounds and movements are as they should be			
Make sure all signs, labels, and warnings are properly posted			

Stop using crane immediately and inform supervisor/health and safety coordinator if any malfunction, unusual noise or unusual movement is observed.

Load only within crane capacity.

Inspect rigging daily.

Grinder

Definition: Bench top or portable powered, revolving, abrasive wheel used for grinding metal surfaces. Also used to produce sparks for metal identification testing.

Potential Hazards:

Aerosolized particles
Dust
Electric shock
Hazardous fumes
High-velocity flying metal fragments
Noise
Oil or hydraulic fluids
Sharp edges/objects

Guarding/Shielding:

Safety guard must cover the spindle end, nut, flange projections, and 270° of the circumference of the abrasive wheel. (Exception: wheel of portable grinder that is two inches or less in diameter.)

Bench and floor stand grinders must have an adjustable work rest. The gap between the edge of the work rest and the grinding surface must never exceed 1/8 inch.

Bench and floor stand grinders must have a maximum grinding wheel exposure of 90°, with no more than 65° exposure above the horizontal plane of the wheel spindle.

The maximum exposure of the grinding wheel on portable grinders may not exceed 180°, and the top half of the wheel must be enclosed at all times.

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots*
Face shield*
Gloves as needed
Respirator as needed

*minimum requirements

Health and Safety Procedures:

Hand tools for placing and removing materials must be such to allow their easy use without the operator having to place any part of his or her body in the machine's danger zone.

Motors and other electrical equipment must be grounded to prevent electrical shock or ignition of flammable or combustible materials.

Sufficient safe clearances must be allowed between machinery and adjacent aisles or passageways. Permanent aisles and passages must be clearly marked.

Indoor floor areas adjacent to machinery must be maintained in a clean and dry condition.

An eye wash must be situated in a clearly marked location in close proximity to the grinder.

The grinding wheel must be rated for the revolution speed of the grinder and the material to be processed.

A preventative maintenance program must be implemented to ensure safe operation of the grinder and the grinding wheel. This preventive maintenance program must include a provision to "ring test" the grinding wheel in an effort to detect anomalies while they are still small.

Guillotine Shear

Definition: A hydraulically operated cutting device that consists of a horizontally-oriented fixed lower blade and a horizontally-oriented moving upper blade that travels in vertical guide channels. May include a hydraulically-operated hopper that compresses the material to be sheared.

Potential Hazards:

Electric shock

Falls

Fire

Explosive atmosphere

Flying/protruding metal

Hazardous fumes, gases or vapors

High-velocity flying metal fragments

Moving hydraulic parts

Noise

Oil and hydraulic fluids

Pinch points

Sharp objects/edges

Slippery walking/working surfaces

Swinging/suspended material

Guarding/Shielding:

Point-of-operation guards must be installed to prevent a worker from having any part of his or her body in the machine's danger zone during the operation cycle.

Fixed shielding with overhead protection must be installed when the operating station is situated near overhead hazards.

Power transmission parts such as gears, shafts, belts or chains must be guarded to prevent accidental contact.

Visual and/or audible warning signals must be installed to warn of impending start-up. Such warning device must provide at least five seconds of warning before the machinery actually begins to operate.

Shields of sufficient construction to stop high-velocity flying metal must be positioned to protect employees, customers and visitors who might be endangered by such flying parts.

Curtains or deflectors must be installed beyond the throat of the shear to safely knock down high-velocity parts that may be ejected from the shear.

Hydraulic lines and valves must be shielded or guarded in such a way as to prevent them from being accidentally struck by workers, objects or equipment.

Slides, bins and other appurtenances must be designed and installed in such a way as to prevent scrap from falling on workers.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

Hearing protection as needed

*minimum requirements

Health and Safety Procedures:

Hand tools for placing and removing materials must be such to allow their easy use without the operator having to place any part of his or her body in the machine's danger zone.

Motors and other electrical equipment must be grounded to prevent electrical shock or ignition of flammable or combustible materials.

Walking/working surfaces situated more than four feet (48 inches) above the adjacent walking/working surface must be equipped with standard railings or fall protection equipment.

All elements of CSA-Z460-05 Control of Hazardous Energy - Lockout and Other Methods (lock-out/tag-out) must be strictly adhered to

Establish audible warning signals for start up and operation of the machinery and post signs describing the intent of these signals.

The operator of the crane, loader or forklift used to load scrap must have a clear, unobstructed view of the all workers in the vicinity of the shear at all times. When workers step into harm's way, loading operations must be suspended immediately.

Special care must be taken never to shear closed containers or cylinders that may contain hazardous materials.

Hydraulic Cast Breaker

Definition: Hydraulic powered box type machine used to crack or crush castings such as motor blocks by means of a cylinder-mounted breakerhead.

Potential Hazards:

- Aerosolized particles
- Electric shock
- Fire
- Flammable gas/vapor/liquids
- Hazardous fumes
- Moving hydraulic parts
- Noise
- Pinch points
- Slippery walking/working surfaces
- Caustic washing solutions
- Swinging/suspended/falling material during loading
- Flying metal fragments

Guarding/Shielding:

Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes pinch points, gates, and flying material. Access/loading doors must be equipped with interlock or similar mechanism that shuts operation down when door is opened.

Shielding including overhead protection must be provided for ground operator.

Mobile equipment used to load Cast Breaker should be equipped with shatter proof windshields or expanded steel in front of factory windshield.

Controls must be positioned or guarded to prevent damage by workers or equipment.

Power transmission parts including gears, shafts, and conveyor drives must be guard to prevent accidental entanglement.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/servicing.

Designate a safe zone around Cast Breaker to prevent injury to pedestrians.

Determine, through air monitoring, whether use of respirators is required.

Practice good housekeeping to prevent slips/falls.

Maintain adequate drainage/collection of fluids.

Maintain proper number and location of emergency stops.

Eye wash station must be near area where oil/fluid splashes could occur.

Fire extinguishers should be near dryer, well labeled, with unobstructed access.

Post emergency shut-down procedures.

Dryer frame must be grounded to minimize spark ignition hazard.

Stairs and walkways should be built from material to offer maximum protection and traction even if covered with oils.

Precautions should be taken to prevent the tracking of oils from the Breaker area.

Warning signs should indicate area of hazardous operations and appropriate restrictions.

Warning signs should indicate PPE requirements prior to entrance.

Magnet

Definition: An electromagnetic tool attached to a material handling crane or other lifting device to lift, move, and separate ferrous metal.

Potential Hazards:

- Gravity: falling magnet/falling material
- Electric shock/burns
- Fire
- Magnetic pull
- Cuts during wire repair
- Arc of travel—crane and boom

Guarding/Shielding:

- Leads and connectors must be present and in proper location. Replace if worn.
- Replace connecting boom lift link according to manufacturers specifications and schedule.
- Crane windshield must be adequately protected with expanded metal or impact-resistant material such as Lexan.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/servicing.
- Designate a no travel zone around crane to protect pedestrians and equipment.
- Fire extinguisher should be in cab or mounted within easy access.
- Inspect magnet daily before use. Repair/replace as needed.
- Do not use magnet to break scrap.

- Store magnets off ground to prevent moisture absorption.
- Always use a 3-point contact to dismount a crane.
- Never swing a load over a person or vehicle.
- Never turn your back on a magnet.
- Operators must be cautious of magnet swing when boomed up and swinging back toward cab, as some booms may allow magnet to travel into cab.
- If so equipped, always use outriggers when operating magnet crane.
- Operators must be cautious of tipping when overloading magnet or booming out too far.
- Remember to cut away from your body when repairing leads.

Metal Dryer

Definition: Rotary or box-type machine used to heat metal scrap (such as turnings) to remove moisture and oil (such as cutting fluid) contamination.

Potential Hazards:

- Aerosolized particles
- Burns/Heat
- Electric shock
- Explosive atmosphere
- Fire
- Flammable gas/vapor/liquids
- Hazardous fumes
- Moving hydraulic parts
- Noise
- Pinch points
- Slippery walking/working surfaces

Guarding/Shielding:

- Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes pinch points, rotating parts, flying material, and hot surfaces.
- Access/loading doors must be equipped with interlock or similar mechanism that shuts operation down when door is opened.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

Fire resistant clothing

Oil resistant boots, gloves

*minimum requirements

Health and Safety Procedures:

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/servicing.
- Designate a safe zone around dryer to prevent burns to pedestrians.
- No smoking. No open flames.
- Keep flammables combustibles away.
- If indoors, dryer should have forced air ventilation to outside or to baghouse or other emission control device. Exhaust ducts should not discharge near doors, windows, or other air intakes.
- Determine, through air monitoring, whether use of respirators is required.
- Practice good housekeeping around dryer to prevent slips/falls.
- Maintain adequate drainage/collection of fluids.
- Maintain proper number and location of emergency stops.
- Eye wash station must be near area where oil/fluid splashes could occur.
- Fire extinguishers should be near dryer, well labeled, with unobstructed access.
- Post emergency shut-down procedures.
- Regularly check for fuel gas leaks.
- Main fuel shut-off must be located away from dryer, easily accessible and labeled.
- Post type of fuel in use at building entrance.
- Regularly monitor temperature readings.
- Train workers on unacceptable materials in dryer including closed containers, magnesium, nitrates, and volatile materials.
- Dryer frame must be grounded to minimize spark ignition hazard.
- Gas-fired units must have an auto health and safety shut-off valve that cuts fuel flow if pilot is extinguished.
- High volume water supply and hose should be near dryer and inspected regularly.
- Stacks or ducts passing through walls must be properly insulated or clearance provided.

Powered Industrial Trucks

Definition: A wheeled-type motorized truck designed primarily as a fork truck with a vertical mast and/or pivoted boom, variable reach or of fixed length, which may be equipped with attachments for lifting pallets, drums, or other materials.

Potential Hazards:

Dust
Exhaust fumes
Slips/Trips/Falls
Falling materials
Rollover
Fuel vapors
Noise
Oil, motor, hydraulic and other fluids
Pinch points
Battery electrolyte

Guarding/Shielding:

Power transmission parts such as gears, shafts, belts, pulleys, masts, booms and the like must be adequately guarded to prevent accidental contact by workers.

Forklift trucks used to charge a furnace must be outfitted with splash and impact resistant screens, mesh or health and safety glass to protect operator. A solid roof must be used in these applications.

Operators must use seatbelt on vehicles so equipped.

Overhead 'cage' protection must be included in forklifts lifting materials at overhead heights.

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots*
Gloves as needed
Respirator as needed
*minimum requirements

Health and Safety Procedures:

Powered industrial trucks must only be operated by properly training and authorized employees

Daily pre-shift use inspections must be performed using the applicable inspection checklist. Checklist must be filed and maintained for one year.

No person may be allowed to ride as a passenger on a forklift truck unless it is equipped for this purpose.

Powered industrial trucks must not be used in atmospheres containing hazardous concentrations of combustible metal dusts, particularly aluminum, magnesium, and their commercial alloys, and anywhere that volatile flammable liquids or flammable gases are handled, processed or used.

Only electrically powered industrial trucks can be used in atmospheres where airborne combustible dusts are in suspension at dangerous concentrations.

Railroad cars and highway trucks/trailers must be braked and chocked with suitable dockboards or bridgeboards in use before crossing or entering with powered industrial trucks.

When a powered industrial truck is left unattended by the operator the load must be lowered, controls neutralized, power shut off, and brakes set. Wheels must be blocked/chocked if the powered industrial truck is on an incline.

When dismounting a powered industrial truck the operator must lower the load, engage brakes, and controls neutralized.

Operators of industrial trucks must be required to slow down and sound horn when crossing aisleways or other locations where vision is obstructed.

Railroad tracks must be crossed diagonally whenever possible and powered industrial trucks cannot be parked closer than 8 feet from enter line of tracks or within the 'fouling' area.

When ascending or descending grades in excess of 10 percent loaded industrial trucks must keep the load on the upgrade side. On all grades load must be raised and tilted back to avoid contact with the surface.

If the load being carried obstructs forward view, the powered industrial tuck must be operated with the load trailing.

Areas designated for battery charging or removal must have facilities for emergency eye wash, neutralizing spilled liquids, fire protection and protection of equipment from trucks and other traffic. Area must be adequately ventilated.

Written procedures for battery charging must be posted and include:

- Powered industrial truck properly positioned in designated area before charging;
- Acids poured into water, not water into acids;
- Battery compartments/covers must be open to dissipate heat and vent caps must be functioning;
- Smoking is prohibited in and near the charging area;
- Precautions must be taken to prevent open flames, sparks, electric arcs or other sources of ignition in the charging area;
- Tools and other metallic objects must be kept away from the uncovered batteries;

Operator training program:

- Employers must assure that operators are properly trained to operate the equipment safely.
- Employees must not operate equipment until having been trained and evaluated by employer.
- Trainees may operate the equipment only under the direct supervision of an individual with knowledge of and experience with the equipment, where such operation does not endanger other employees.
- Required training includes: formal instruction; practical training; evaluation of operators performance.
- The training must be provided by persons with knowledge, training, and experience to train powered industrial truck operators and evaluate their competence. The trainer need not be a supervisor. The trainer is not required to have completed a formal training program or certification specifically addressing powered industrial truck operation. The employer must be satisfied that the trainer is qualified to provide the training and evaluation.

Training program required content:

- Operating instructions, warnings and precautions for the types of industrial trucks the operator will be authorized to use;
- Differences between powered industrial trucks and automobiles;
- Truck controls and instrumentation, where they are located. What they do and how they work;
- Engine and motor operation;
- Steering and maneuvering;
- Visibility including loading restrictions;
- Fork and attachment adaptation, use, operation and limitations;
- Vehicle capacity;
- Vehicle stability;
- Vehicle inspection and maintenance requirements;
- Refueling and/or charging procedures, requirements, and precautions;
- Operating limitations;
- Any other operating instructions, warnings or precautions listed in the operators manual for the types of vehicles used and requiring training.

Workplace-related topics:

- Surface conditions and changing surface conditions of the surfaces which the vehicle may be operated on;
- Composition of loads to be carried and load stability;
- Load manipulation, stacking and unstacking;
- Pedestrian traffic in areas where the vehicle will be operated;
- Narrow aisles and other restricted places where the vehicle will be operated;
- Ramps and other sloped surfaces that could affect the vehicles stability;
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust;
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operations.

Training on all of the topics above is not required if the operator has already received training on them if such training is appropriate to the truck and working conditions and if the employee has been evaluated and found competent to operate the truck safely. Avoidance of duplicative training applies to both newly hired and current employees.

Certification

The employer must 'certify' that each operator has been properly trained and evaluated. The written certification must include the name of operator, the date of training, the date of the evaluation, and the identity of the person(s) performing the training and evaluation. Signatures are not required on the certificate.

The employer is not required to maintain training materials, course outlines, and other information when outside trainers are used.

Refresher Training and Evaluation

The operator of a powered industrial truck must undergo refresher training including evaluation of the effectiveness of that training when:

- The operator has been observed operating the vehicle in an unsafe manner;
- The operator has been involved in an accident or near-miss incident;
- The operator's evaluation reveals the truck is not being operated safely;
- A condition in the workplace changes in a manner that could affect safe operation of the truck.

A formal evaluation of the operator's performance must be conducted every three years.

A written preventative maintenance program must be in place including documentation and retention of findings, maintenance completed, and corrections. Program must include checks for abrasions, bends, dents, cracks and wear on forks.

Written daily inspection program including checklist.

Motorized hand trucks should enter confined areas with the load end facing forward.

Industrial trucks should be started only when the operator is seated at the controls.

The engine must be stopped and the operator off the truck during refueling.

Powered industrial trucks carrying a load should not be driven over thick ice, mud, or other unstable surfaces. Tires can sink causing load to shift and/or fall, or truck to rollover.

Powered Industrial Truck Inspection Checklist

Battery-Powered Lift Trucks

Inspected by: _____ Date: _____	Yes	No	N/A
Battery plug connection			
Battery charge			
Battery load test			
Brakes - service and seat brakes			
Lights - head, tail and warning			
Horn			
Hour meter			
Steering			
Tires			
Hydraulic controls			
Other conditions or devices attached			
Backup alarm			
Forks, Backrest, Carriage			
Overhead guard/rollover protection			
Mast, chain			
Explain any action taken if applicable:			

Inspection required before every shift.

Operator's Signature and Date _____

Powered Industrial Truck Inspection Checklist

Engine-Powered Lift Trucks

Inspected by: _____ Date: _____	Yes	No	N/A
Fuel level			
Oil level and pressure			
Water level and fan belt			
Brakes - Service and Parking			
Lights - head, tail and warning			
Horn			
Hour meter and gauges			
Steering			
Tires			
Hydraulic Controls			
Other conditions or attachments			
Mast and Chain			
Overhead Guard/Rollover protection			
Backup alarm			
Forks, Backrest, Carriage			
Explain any action taken if applicable:			

Inspection required before each shift.

Operator's signature and date: _____

Railroad Cars

Definition: Open-top 'gondola' rail cars commonly used to ship loose metal scrap, baled metal scrap, plate, shredder fluff, and baled paper scrap. Box cars used for loading baled scrap. Yard locomotives often used to maneuver cars on siding within yard.

Potential Hazards:

Falling from heights

Falling while climbing

Falling materials during loading/unloading

Runover and Runaway

'Fouling' close-parked equipment, materials and people

Equipment damage

Pinch points/crush points

Diesel exhaust fumes

Locomotive engine compartments and exhaust systems require guarding/shielding to prevent accidental contact by workers.

Electrical shock hazards

Guarding/Shielding:

End of line bumpers are required on sidings in yard. Railcar chocks necessary whenever parked and stationary for loading/unloading.

Dockplates/bridge plates required when loading box cars with powered industrial trucks.

Locomotives require guards on rotating parts, hydraulic lines, and hot surfaces.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

Written railcar management procedures required for all operations.

Inspection requirements for all railcars using inspection checklist per Federal Railroad Regulations and company policy.

Formal training of all operators required including inspection requirements and recordkeeping, hand signaling requirements, switching operations, warning signs and electronic signals, coupling lever operation, brake setting, brake inspection, chocking procedures and fouling avoidance.

All operators require training on proper mounting and dismounting techniques.

All operators require training on track crossing procedures:

- Never within 25-feet of stopped, separated cars;

- Never within 10-feet of stopped end car.

Lockout/Tagout procedures and systems must be used when performing maintenance operations on locomotives, railcars, axles, wheels or other assemblies.

Radio and hand signal communications required when moving, switching, loading, unloading and otherwise managing railcars and locomotives within the yard.

Keep rail siding clear of debris/scrap to avoid slip/trip/fall hazards to workers.

Load loose scrap material no more than level with the open-top gondola sides and end, per November 2008 AAR Technical Guidance.

Baled scrap can be loaded above railcar sides and ends provided bale dimension is at least 50% below the sides/ends and completely covers any loose scrap.

Lightweight scrap (i.e. tin and aluminum) must be covered with lids, tarps, mesh netting or other method to avoid materials from flying out of open-top railcar during transit, switching, humping or other movements.

Authorized personnel only may approach railcar loading/unloading operations.

Crane operators must stop movement when personnel are not in designated health and safety zones.

Railroad Car Inspection Checklist

Inspected by: _____	Date of Inspection: _____	Location of Railcar: _____
"A" End	Item	"B" End
	Brake-Step	
	Hand Brake	
	Running Boards	
	Ladders, Side	
	Ladders, End	
	End Ladder Clearance	
	Roof Handholds (boxcar)	
	Side handholds	
	Horizontal end handholds	
	Vertical end handholds	
	End platforms	
	Uncoupling Levers	
	Couplers	
	Coupler Height	
	Sill steps	
	Caboose platform steps	
	Side door steps	
	Health and safety railings	
	End platform handholds	
	Side door handholds	
	Pilot sill steps	
	Pilot beam handholds	
	Rear end handholds	
	Footboards	
	Power brakes	

Note any deficiencies and actions taken:

Signature of Inspector: _____

Shredder

Definition: Large, usually stationary scrap processing machine that uses rotating hammers inside a mill to reduce scrap that is further separated using magnetic and/or air systems.

Potential Hazards:

- High-velocity flying metal fragments
- Falling material from conveyors
- Dust
- Aerosolized particles
- Electric shock
- Explosive atmosphere
- Fire
- Moving hydraulic parts
- Noise
- Pinch points
- Slippery walking/working surfaces
- Jagged edges on finished product
- Confined spaces
- Mobile equipment traffic
- Pedestrian traffic

Guarding/Shielding:

- Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes pinch points, rotating parts, flying material.
- Access doors must be equipped with interlock or similar mechanism that shuts operation down when door is opened.
- All conveyors must be guarded to within 7' of ground.
- Access under conveyors must be blocked or guarded during operation.
- A "No Entry Zone" should be clearly posted to keep foot and vehicle traffic away from field of flying debris from rotor shaft.
- Power transmission apparatus including gears, shafts, belts, and drive pulleys must be guarded to prevent accidental entanglement.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Leather gloves*

Hearing protection as needed

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance and servicing. Allow NO SHORTCUTS.
- Determine, through air monitoring, whether use of respirators is required.
- Practice good housekeeping especially on catwalks to prevent slips/falls.
- Maintain adequate drainage/collection of fluids.
- Maintain proper number and location of emergency stops.
- Eye wash station must be present and clearly identified.
- Fire extinguishers must be present in sufficient number, well labeled, with unobstructed access. Use no CO₂ or liquid fire extinguishers in electrical rooms.
- Post emergency shut-down procedures.
- Unacceptable materials should be clearly posted for customers and regularly inspected for and rejected. These unacceptable materials will vary based on type and size of shredder and local requirements and might include wood, rubber, lead acid batteries, PCB-containing capacitors, compressed gas cylinders, refrigerant-containing cooling systems, and gas tanks.
- Guardrails should be present where needed and in good repair.
- Air monitoring should be used to determine the need for respiratory protection.
- Areas of travel of explosive doors and panels should be marked "off limits" during shredder operation.
- Automobile hulks and other feed material should be stored with adequate travel room between stacks.
- Post procedure for response to explosion or fire.
- Workers must not cross over moving conveyors except with the use of ladders or elevated walkways.
- Written confined space entry procedures, where required, must be developed and strictly followed and enforced.

Sling

Definition: Flexible lifting attachment used with crane hook, bucket, shovel or similar to hoist and move materials or equipment.

Potential Hazards:

Falling materials

Sharp edges

Pinch points

Swinging suspended materials

Guarding/Shielding:

Workers on ground in vicinity of lifted materials should be located in designated health and safety zone during lifting/hoisting operation.

Operator of crane or device using a sling should be located in enclosed cab with sufficient impact resistance to prevent injury upon impact of falling or swinging materials.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

Slings must not be used if damaged or defective. Use Inspection sheet to verify condition for use. Inspections must occur before each use.

Slings must not be loaded in excess of rated capacity.

Employees on ground must clear the area after attaching sling to materials and remain in designated health and safety zone while materials are hoisted or swinging.

Suspended loads must be kept clear of buildings, power lines and any walking or working areas.

Loads must be balanced before attempting lift.

All workers performing the hoisting/lifting operation must be familiar with the hand signals employed and/or have access to radio communication with crane/equipment operator during hoisting activity.

Signs must be posted in the work area that identify hand signals that are in use, and the designated safe zones.

The operator of the crane/equipment performing hoisting/lifting must always have an unobstructed view of the work area.

Only slings that have been inspected and approved for use are allowed.

Sling Inspection Checklist

Wire rope, synthetic web, chain, and metal mesh slings

Inspected by: _____ Date: _____	OK	No	N/A
Remove wire rope sling from service if TEN randomly broken wires lay in one rope, or FIVE broken wires in one strand			
Remove wire rope sling from service if wear or scraping has removed 1/3 the original diameter of outside individual wire			
Remove wire rope sling from service if kinking, birdcaging, or any other damage results in distortion of rope structure			
Remove wire rope sling if evidence of caustic or acid burns or heat damage			
Remove wire rope sling from service if end attachments are cracked, deformed or worn			
Remove wire rope sling from service if capacity tag is missing or illegible			
Remove synthetic web sling from service if acid or caustic burns are evidenced			
Remove synthetic web sling from service if burns, charring, or melting is evidenced			
Remove synthetic web sling from service if snags, punctures, tears or cuts are evidenced			
Remove synthetic web sling from service if there are broken or worn stitches			
Remove synthetic web sling from service if there is wear exceeding manufacturers recommendations			
Chain sling links cannot be bent, stretched, cracked or heat damaged			
Rings and hooks cannot be distorted, cracked at welds, or have corrosion or heat damage			
Chain slings cannot have deformed master link or coupling links			
Chain sling hooks cannot have more than 15% normal throat opening or more than 10 degrees twist from plane of unbent hook			
Chain sling hooks must have health and safety latch that works			
Chain slings must be removed from service if capacity rating tag is missing or illegible			
Metal mesh slings cannot have broken welds or joints			
Metal mesh slings cannot have broken wire in any part of the mesh			
Metal mesh slings cannot be used if abrasion has reduced 25% of wire, or if corroded more than 15%			
Metal mesh slings cannot be distorted, twisted at ends or have cracked fittings			
Metal mesh slings cannot be used if capacity tag is missing or illegible			

Torch Cutting

Definition: Process for cutting metal using an apparatus that produces a very hot flame through the combustion of gases.

Potential Hazards:

Aerosolized particles
Back strain
Burns
Explosive atmosphere
Falling heavy objects
Fire
Flammable gases or vapors
Hazardous fumes
Hot environment
Oil and hydraulic fluids
Repetitive motion injuries
Sharp objects/edges

Guarding/Shielding:

Approved protective equipment must be installed into the fuel gas piping to prevent

- Backflow of oxygen into the fuel gas supply system
- Passage of a flash back into the fuel gas supply system
- Excessive back pressure of oxygen in the fuel gas supply system.

Protective Equipment:

Hard hats*
Health and safety glasses*
Steel toe/steel shank work boots with metatarsal guards*
Oil resistant clothing or covering*
Fire retardant gloves*
Fire retardant coveralls or other form of full body work clothing*
Fire retardant long sleeved shirt*
Eye/face shielding that provides protection from ultraviolet light (shade ratings of 4 to 6, depending on the thickness of the material being cut)*

Respirator (unless the absence of a respiratory hazard can be proven)*

Hearing protection as needed

*minimum requirements

Health and Safety Procedures:

Portable fire extinguisher must be plainly marked and readily available in close proximity to torch cutting operations.

Managers and operators must analyze torch cutting operations to determine the level of potential exposure to hazardous materials. These materials include, but are not necessarily limited to:

- Lead
- Cadmium
- Beryllium
- Carbon monoxide
- Chromium
- Iron oxide
- Magnesium oxide
- Mercury vapor
- Nickel
- Nitrogen dioxide
- Zinc oxide

Where hazardous levels exist, workers must be protected and monitored in accordance with the corresponding regulation(s).

Compressed gas cylinders must never be moved via magnet.

Torch cutting areas must be reasonably free of flammable or combustible materials.

Establish a written procedure for handling and storage of compressed gases that includes, at a minimum:

- Maximum cylinder pressure
- Maintenance of cylinder labels and markings
- Storage of cylinders
 - Away from heat
 - Away from combustible materials in general
 - Away from oil, grease or any petroleum products
 - With valve protection caps in place
 - With valves closed
 - Valve end up
 - Oxygen cylinders stored separately from fuel gas cylinders or other combustible materials
 - Oxygen and fuel gas cylinders must be separated by either:
 - A physical separation of 20 feet; or
 - A noncombustible barrier at least 5 feet high having a fire resistive rating of at least one-half hour.

Remove regulators before moving or transporting cylinders.

For cylinders not having fixed hand wheels, a key, handle or nonadjustable wrench must remain on the valve stem when cylinders are in use. For a multiple cylinder installation, only one such device is required for each manifold.

Cylinders may not be placed in a location where they might become part of an electrical circuit.

Written procedures must be developed for use of compressed gas cylinders, and those procedures must address:

- Cylinders, valves, couplings, regulators, hoses and apparatuses must be kept free of oil, grease or other petroleum products;
- Cylinder valves must be operated only by hand, and closed only hand-tight;
- Before connecting to a regulator to a cylinder valve, the valve should be opened slightly then closed immediately to clear the surfaces of debris;
- Stand to one side when opening the cylinder valve;
- An acetylene cylinder valve should be opened no more than one-half of one turn of the spindle;
- Only a friction spark lighter may be used to light a torch.

Cylinders found to have leaking valves must be immediately removed from service and taken outside, where they will be segregated from sources of ignition. Such leaking cylinders should be returned to their suppliers.

Vehicle Wheel Rims

Definition: Single and multi-piece rim assembly used for mounting large tires of heavy equipment, trucks, and similar vehicles, sometimes called 'spilt-rim wheels'.

Potential Hazards:

Material handling/ergonomic/muscle strains/sprains

Rapid and catastrophic disassembly during pressurization

Pinch points

Guarding/Shielding:

Wheel rim/tire assembly cages or similar servicing devices must be used when mounting tires on multi-rim assemblies.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

No employee can be allowed to service a rim wheel/tire unless the employee has been trained and has demonstrated the ability to service rim wheels safely including performance of the following tasks:

- Mounting/demounting of tires

- Handling, Inspection and identification of rim wheel components

- Use of restraining device/barrier

- Inflation of the tire when a single piece rim wheel is mounted on a vehicle

- Installation and removal of rim wheels

Employees servicing rim wheels must demonstrate an understanding of the necessity of standing outside the trajectory both during inflation of the tire and during inspection of the rim wheel following inspection.

The training program must include the same information that is applicable to the types of rims/wheels being serviced:

'demounting and Mounting Procedures for Bus/Truck Tires';

'Multi-piece rim matching chart';

National Highway Traffic Safety Administration (NHTSA) 'Demounting and mounting procedures for Bus/Truck Tires';

NHTSA 'Multi-piece rim matching chart'.

Safe Operating Procedures

Multi-piece Rim Wheels:

Employers must establish a safe operating procedure for servicing multi-piece rim wheels which include at least the following elements:

Tires must be completely deflated before demounting by removal of the valve core;

Tires must be completely deflated by removing the valve core before a rim wheel is removed from the axle in either of the following situations:

When the tire has been driven underinflated at 80 percent or less of its recommended pressure;

When there is obvious or suspected damage to the tire or wheel components.

Rubber lubricant must be applied to the bead of the tire and rim mating surfaces during assembly of the wheel and inflation of the tire, unless the tire or wheel manufacturer recommends against it.

If a tire on a wheel is underinflated but has more than 80 percent of the recommended pressure, the tire may be inflated while the rim wheel is on the vehicle provided remote control inflation equipment is used and no employees remain in the trajectory during inflation.

Wire Chopper

Definition: Box-shaped machine that cuts insulated wire and cable by means of a series of rotary-mounted knives that separate metallic from nonmetallic granulate.

Potential Hazards:

- Electric shock
- Moving hydraulic parts
- Noise
- Pinch points
- Slippery walking/working surfaces
- Flying metal fragments
- Dust

Guarding/Shielding:

- Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes pinch points, rotating parts, and flying material.
- Access/loading doors must be equipped with interlock or similar mechanism that shuts operation down when door is opened.
- Shields of construction sufficient to stop flying metal fragments should be positioned to protect employees working nearby.
- Controls should be guarded to protect from flying material and damage by workers or mobile equipment.
- Power transmission parts including gears, shafts, and conveyor drive pulleys should be adequately guarded.

Protective Equipment:

Hard hats*

Health and safety glasses*

Steel toe/steel shank work boots*

Face shield as needed

Gloves as needed

Respirator as needed

*minimum requirements

Health and Safety Procedures:

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/servicing.
- No smoking. No open flames.
- Determine, through air monitoring, whether use of respirators is required.
- Practice good housekeeping around chopper to prevent slips/falls. Even dry pieces of residue can lead to slips and falls.
- Maintain proper number and location of emergency stops.
- Eye wash station must be near area where oil/fluid splashes could occur.
- Fire extinguishers should be appropriately placed, well labeled, with unobstructed access.
- Post emergency shut-down procedures.
- Chopper frame must be grounded to minimize spark ignition hazard.
- If overhead conveyors are used, prevent pedestrian traffic under conveyor during operation.
- An eye wash station should be situated near chopper.
- There should be audible/visible signs for start- up of equipment with signs describing the start-up alarm.
- Warning signs should indicate hazardous operation area with restrictive access.

References & Resources

Canadian Centre for Occupational Health and Safety, <http://www.ccohs.org/>
CANOSH, <http://www.canoshweb.org/en/map.html>
Canadian Standards Association, <http://www.csa.ca/>

Alberta, <http://employment.alberta.ca/SFW/53.html>

British Columbia, <http://www.worksafebc.com/>

Manitoba, <http://www.gov.mb.ca/labour/safety/index.html>

New Brunswick, <http://www.whscc.nb.ca/>

Newfoundland and Labrador, <http://www.gs.gov.nl.ca/ohs/>

Nova Scotia, <http://www.gov.ns.ca/lwd/healthandsafety/>

Ontario, <http://www.labour.gov.on.ca/english/hs/>

Prince Edward Island, <http://www.wcb.pe.ca/>

Québec, <http://www.csst.qc.ca/>

Saskatchewan, <http://www.labour.gov.sk.ca/ohs>

Northwest Territories/Nunavut, <http://www.wcb.nt.ca/Pages/default.aspx>

Yukon Territory, <http://www.wcb.yk.ca/WorkplaceSafety/Default.aspx>