



***Employee***

***Safety***

***Manual***

**Table of Contents**

EMERGENCY CONTACT NUMBERS ..... 2

Company Fundamentals ..... 4

    ArcTech Welding & Machining Safety Policy ..... 4

    Purpose for the Manual ..... 5

    Training ..... 5

    HSE Achievement Review ..... 5

Roles and Responsibilities ..... 6

    Senior Management ..... 6

    Supervisory Staff ..... 6

    Employees and Contract Workers ..... 6

    Visitors ..... 6

Company Rules and Regulations ..... 7

Company Policies ..... 8

    Disciplinary Policy ..... 8

    Business Conduct Policy ..... 8

    Alcohol and Drug Policy ..... 8

    Anti-Harassment Policy ..... 8

    Smoking Policy ..... 9

    Personal Protective Safety Equipment Policy ..... 9

Legislation and Regulations ..... 10

    Highlights of Alberta/British Columbia Acts and Regulations 10

    Location of Legislative and Regulatory Documents ..... 10

Company Protocol and Procedures ..... 11

    Standards and Guidelines ..... 11

    Practices and Procedures ..... 11

    Performance Measurement & Reporting ..... 11

    HS&E Audit Program ..... 11

    Hazard Identification and Control ..... 11

    Emergency Preparedness & Response ..... 12

Incident Reporting and Investigation ..... 18

    Notification and Reporting Procedures ..... 18

    Incident Investigation ..... 19

    Assessment of Recommendations ..... 19

Health Issues ..... 19

    Occupational Health and Hygiene ..... 19

Safe Work Practices & Procedures ..... 20

    Welding ..... 21

    Safe Driving ..... 22

    Mechanical / Servicing ..... 22

    Confined Space ..... 24

Employee Orientation Overview ..... 26

**EMERGENCY CONTACT NUMBERS**

| Agency         | Fort St John                         |
|----------------|--------------------------------------|
| Ambulance      | 785-2079                             |
| Air Medivac    | Bailey 785-2518<br>Canadian 787-0431 |
| Hospital       | 262-5200                             |
| Police         | 787-8100                             |
| Company office | 785-5151                             |

|                       |   |
|-----------------------|---|
| Dave Diehl<br>(Owner) | 263-3024 (cell)                           |
| WCB                   | 785-1283<br>After hours<br>1-866-922-4357 |

# **Company Fundamentals**

## ***ArcTech Welding & Machining Safety Policy***

### **Commitment**

The Management at ArcTech Welding & Machining is committed to maintaining a safe and healthy workplace and protecting the environment. Specifically we will:

- Meet or exceed all applicable laws and regulations
- Continually improve our HSE performance
- Communicate with our staff and workers through regular safety meetings and by establishing a Health & Safety representative
- Strive to prevent injuries and illnesses
- Require the refusal of work when unsafe conditions exist
- Hold supervisory staff responsible for the identification of safety needs, communicating hazards, providing training, and supplying specific PPE
- Require all employees and contract workers to follow procedures, rules, standards, and practices to which our company is committed

### **Enforcement of Safety Rules**

Employees, contractors and subcontractors who knowingly violate safety rules may face disciplinary action, dismissal or legal action. Visitors may face legal action if they knowingly disobey safety rules. In addition, the company may face legal action and fines for violations of regulatory requirements. Those individuals who do not fulfill their safety responsibilities will become accountable for any problems their negligence creates and may be liable under the law.

### **Responsibilities**

Everyone employed by ArcTech Welding & Machining Ltd. is responsible for maintaining the safety program. Managers and leaders are responsible for identifying safety needs, communicating safety hazards, investigating hazardous conditions and accidents, providing training, supplying specific or wearing appropriate safety and personal protective equipment, and ensuring all equipment is properly maintained and meets legislative safety standards. Their role is supported by input from all employees.

All company employees and others on company worksites are responsible for obeying all safety rules, following recommended safe work practices, wearing and using personal protective equipment when required, participating in safety training programs and informing supervisors of any unsafe work conditions. Everyone has the right and responsibility to refuse to do work when unsafe conditions exist.

By fulfilling our safety responsibilities, everyone who works for ArcTech Welding & Machining Ltd. will share the benefits of a safe workplace.

## **Purpose for the Manual**

This structure of the Employee Orientation Manual was developed with several objectives in mind:

- Provide safety information and procedures that will assist all workers towards using safe practices in the workplace
- Provide an easily referenced document in which employees can locate information quickly
- Emphasize the company's commitment to safety

## **Training**

ArcTech Welding & Machining is committed to an effective training program, whether provided by the company or obtained externally. The following table lists the training required for employment:

| <b>Training</b>           | <b>Required for</b> | <b>Condition</b> |
|---------------------------|---------------------|------------------|
| WHMIS                     | All                 | Pre-employment*  |
| First Aid                 | Specified personnel | Ongoing          |
| H <sub>2</sub> S Alive    | Specified personnel | Ongoing          |
| Confined Space Entry      | Specified personnel | Ongoing          |
| HSE Orientation**         | All                 | Ongoing          |
| Management Orientation*** | Staff personnel     | Ongoing          |

\* Training supplied by employee or worker within 30 days of hire.

\*\* Includes review of: Orientation Manual, HSE highlights, EPR procedures, Standard Operating procedures, Codes of Practice, and on-the-job training

\*\*\* Includes review of: Incident Investigation & Management, Procedure development & management, inspection training, personnel management

After a suitable probationary period, ArcTech Welding & Machining Ltd. will pay for the renewal of the required safety tickets and other training that is required. Ongoing training is part of the company's continuing commitment to safety, and will be provided wherever necessary to ensure workers are up-to-date and competent.

## **HSE Achievement Review**

At periodic intervals, workers will participate in company *HSE Achievement Reviews*, which evaluate safety knowledge, competency

of work practices, and awareness of emergency response issues.

For more details, please refer to page 12 of this manual.

## **Roles and Responsibilities**

ArcTech Welding & Machining Ltd. acknowledges that safety is a responsibility that is shared by everyone in the company. Everyone is encouraged to look for ways to improve the safety of our operations and to communicate those ideas with the management.

Listed below are some of the key responsibilities of various personnel.

### ***Senior Management***

Management will:

- Provide leadership and an example of the safety and environmental standards of the company
- Evaluate HSE Achievement Reviews
- Make provision for initial & ongoing training for staff & employees
- Provide well-maintained mechanized equipment and additional specialized PPE/Safety equipment as required
- Participate in worksite tours and hazard inspections
- Review Incident Investigations and participate in follow-up communication of preventative action
- Make provision for periodic Safety audits
- Review and update safety program as required
- Conduct Management Reviews annually

### ***Supervisory Staff***

Supervisory staff will:

- Maintain awareness of the company safety policy in the workplace
- Provide pre-job operational and safety information for hazard abatement
- Implement and monitor the Preventative Maintenance Program
- Ensure that all employees are adequately trained and that necessary equipment is provided
- Participate in worksite hazard inspections
- Ensure that projects are conducted in accordance to First Aid regulatory requirements
- Report any safety or environmental incidents to management

### ***Employees and Contract Workers***

Employees and Workers will:

- Review and comply with the safety and environmental practices, procedures and rules pertinent to work activities
- Wear all appropriate personal protective equipment required for the specific job
- Notify the supervisor or management of unsafe conditions, practices or equipment
- Report any safety or environmental incident to supervisory staff as soon as possible
- Participate in worksite hazard inspections and assessments

### ***Visitors***

Visitors will:

- Report to management staff prior to entering shop or yard facilities
- Follow company safety precautions when visiting a worksite
- Wear PPE appropriate to the conditions as directed by management personnel

## **Company Rules and Regulations**

ArcTech Welding & Machining Ltd. is committed to carrying out all of its operations in accordance with the applicable laws and regulations of the province. Listed below is an outline of basic principles by which the company operates.

All employees and contract workers will:

- Not enter into business relationships or initiatives that are in conflict with their employment at ArcTech Welding & Machining Ltd.
- Operate within the law in carrying out their duties
- Operate their equipment in a safe and reasonable manner that in no way jeopardizes the health or safety of other workers or the public
- Not engage in any form of harassment based on race, sex, religion, or any other form that creates an intimidating, hostile or offensive work environment
- Not engage in horseplay or practical jokes
- Not be in possession of or consume alcohol and/or illegal drugs in the course of work for the company
- Not report to work when their ability to perform their job is impaired
- Not smoke in areas other than those designated by the company
- Not commence work before taking appropriate steps to identify and control worksite hazards
- Utilize appropriate PPE on all job sites *and* on company locations as prescribed by the management
- Take immediate action to prevent injuries, protect other workers, and safeguard the environment

**Failure to comply with these rules is grounds for disciplinary action**

# **Company Policies**

## ***Disciplinary Policy***

Under normal circumstances, the company will enforce a three-step disciplinary program. For serious violations, however, the company reserves the right to terminate an employee immediately.

**STEP 1: Verbal Reprimand:** This includes discussion of the violation and a warning of more severe action, should the offence be repeated. Notes of the discussion will be placed on file.

**STEP 2: Written Reprimand:** This involves discussion of the violation and a written record of the violation and reprimand. A copy of the reprimand is given to the employee and another is put into the employee's personal file. Warning of more severe action should the offence be repeated is also given.

Three written reprimands would be considered sufficient grounds for dismissal.

**STEP 3: Dismissal:** This is initiated only when all other attempts to correct the substandard behavior have failed or when the employee has shown total disregard for the safety rules of the company. Formal discharges will be documented in a letter to the employee. This will only be taken as a final step when sound judgment indicates no other alternative.

Circumstances that may trigger disciplinary action:

- Loss of drivers license due to an impaired charge or traffic violation
- Any form of theft
- Intentional misrepresentation of hours on invoices or time sheets
- Willful breach of safety rules or company policies
- Inappropriate attitude towards other employees or customers
- Failure to report to management when late or absent
- Credit abuse
- Abuse of equipment

## ***Business Conduct Policy***

Ethical business practices are fundamental components of a quality company. The Policy is founded on a number of important principles, which are listed below.

1. All employees deserve equal treatment, with performance being the only basis for advancement or differentiation in treatment.
2. ArcTech Welding & Machining Ltd. employees are representatives of the company (in attitude & when handling company assets) and must carefully consider at all times the image they project.
3. All ArcTech Welding & Machining Ltd. employees have a responsibility to work safely, in an environmentally responsible manner, and to follow the established safety rules of the company
4. Every reasonable effort will be made to avoid any possible conflict of interest that may arise during the course of work. Employees and contract workers must avoid situations where their activities in other areas undermines or conflicts with their employment to ArcTech Welding & Machining.

## ***Alcohol and Drug Policy***

ArcTech Welding & Machining Ltd. is determined to ensure substance abuse does not adversely affect the safe and successful conducting of our business. The use of illegal drugs, the inappropriate use of alcohol and the misuse of medications and other substances can have serious adverse effects on health, safety and/or job performance. Misuse of these substances can also negatively impact other employees, our customers and members of the community in which we work.

At ArcTech Welding & Machining Ltd., we believe each employee has a responsibility to themselves, other employees and to the company to help eliminate drug and alcohol misuse. ArcTech Welding & Machining Ltd's Alcohol and Drug guidelines reflect this commitment.

## ***Anti-Harassment Policy***

ArcTech Welding & Machining Ltd. supports your right to work in an environment free from all forms of discrimination and harassment. These elements simply will not be tolerated within our company.

ArcTech Welding & Machining Ltd. defines harassment as "any conduct or comment, motivated by the below list, that you find offensive and that creates an intimidating, hostile or offensive work environment. Harassment can interfere with your work performance, affect your employment relationship and deny you your dignity and respect."

ArcTech Welding & Machining Ltd's anti-harassment policy prohibits harassment based on a person's:

- Race, religion, family status, color, creed
- Pregnancy, ethnic origin, gender, sexual orientation
- Age, marital status, physical disability
- Mental disability or any other prohibited ground of discrimination defined by the legislative jurisdiction in which ArcTech Welding & Machining Ltd. operates

### **Smoking Policy**

- Employees and contract workers are entitled to a smoke-free workplace. The company supports a safe and healthy work environment free from the discomfort and health risks associated with direct and secondary exposure to smoke.
- Smoking is prohibited at all times at all company sites, facilities and buildings, whether they are company owned or leased. This policy also applies to all company owned and leased vehicles. Failure to comply with this policy will result in disciplinary action taken by the company.
- Smoking may be allowed in designated areas, as approved by Supervision.

### **Personal Protective Safety Equipment Policy**

ArcTech Welding & Machining Ltd. requires that all new hires come with specified personal protective equipment as a condition of employment. This equipment will include the following:

- Welding Helmet (CSA-Z87-S)
- Safety Boots (CSA-Z195-M92) Green triangle with 6" ankle support
- Safety Glasses (CSA-Z94.3-92)
- Fire Retardant Clothing (ProBan or Nomex)
- Gloves

On an ongoing basis, the company will provide required safety glasses and ear protection to the employee

The pieces of safety equipment that you will require will vary according to the nature of your work and type of facility or area you will be visiting. Specific PPE required for a worksite is identified on the *Dispatch Sheet*.

## **Legislation and Regulations**

### ***Highlights of Alberta/British Columbia Acts and Regulations***

- ArcTech Welding & Machining Ltd. is responsible for the health and safety of its own workers and, if a prime contractor, for the health and safety of all workers at the site where activities are being conducted
- Due Diligence must be utilized to prevent accidents by:
  - Providing appropriate training for all workers
  - Establishing and monitoring appropriate processes and procedures to ensure compliance to legal requirements and conformance to company standards and guidelines
  - Assessing worker practices to ensure competency
  - Taking reasonable care to prevent accidents
- If an employee believes that by performing work he or she is exposed to imminent danger, that worker has the right to refuse performance of the work (Alberta Occupational Health and Safety Act or the BC Occupational Health and Safety Regulations)
- If work conditions are unsafe or a worker is exposed to imminent danger, work must **cease** and the supervisor notified of the unsafe condition

### ***Location of Legislative and Regulatory Documents***

Applicable legislation and regulations pertinent to the company are maintained in the office of the *Safety Officer*. Some of the more important documents are:

- WCB Act and Regulations of BC
- WHMIS (Workplace Hazardous Materials Information System)
- Fire Code of BC

# **Company Protocol and Procedures**

## ***Standards and Guidelines***

### *Standards:*

Approved, documented codes that state the measurable performance that the company must achieve to meet the intent of regulatory requirements and its own policies

### *Guidelines:*

Mandatory and discretionary elements that provide direction towards achieving HS&E Standards

Standards and guidelines, which are based on Codes of practice, cover all areas of HS&E activities, including occupational health, safety, process safety, environmental protection, and operations.

## ***Practices and Procedures***

Practice and procedure documents (such as *Standard Operating Procedures*) contain methods or instructions that outline the sequence and action to be taken in order to accomplish designated work. Practices and procedures are the practical application of the standards and guidelines.

## ***Performance Measurement & Reporting***

Performance measurement and reporting is essential to ensure continuous improvement throughout the company. Significant hazards, incidents, and near misses are reported and tracked to identify harmful trends and to enable preventative action. On an annual basis, management will review these tracked issues to determine long-term health and safety strategies.

## ***HS&E Audit Program***

Company operations are regularly audited on its performance in HSE. Management is briefed regularly on general trends in audit findings, as well as on specific examples of best practices and deficiencies.

## ***Hazard Identification and Control***

### **Preventative Maintenance Program**

Mechanical and operating hazards for company equipment are eliminated or minimized through the use of a preventative program.

#### **Phase 1: Inspections**

Inspection Stages

1. **Identify** the deficiency (defective or worn parts) and document on *Vehicle & Equipment Maintenance Record Forms*
2. **Notify** management or maintenance personnel if assistance is required

Inspectors will undergo inspection training for the early detection of worn or damaged equipment.

#### *Inspection Requirements*

| <b>Type</b>             | <b>Conducted by</b>  | <b>Frequency</b>                    | <b>Location</b>   |
|-------------------------|--|-------------------------------------|---|
| Equipment<br>Inspection | <ul style="list-style-type: none"><li>• Maintenance Personnel</li><li>• Management staff</li></ul> | Monthly or reasonable<br>equivalent | <ul style="list-style-type: none"><li>• Company files</li></ul> |

#### **Phase 2: Repair and Maintenance**

Maintenance Personnel responsibilities

- Repair or replacement of defective parts or equipment will assume high priority status
- Maintenance items will be appropriately scheduled as per manufacturers recommendations or company protocol

#### **Phase 3: Follow up**

Management Responsibilities

- Management will periodically check Equipment Inspection, and Maintenance & Repair forms to ensure continuity of the *Preventative Maintenance Program*.
- Maintenance logs of equipment will be maintained on file for a period of three years.

## HSE Achievement Review

Employee and contract workers will receive periodic reviews of their safety and environmental performance, during which the following will be assessed:

- Awareness of Health, Safety, and Environmental issues
- Awareness of Emergency Response issues
- Competency to company procedures and practices

Initial reviews will be conducted within three months of a worker's hire, with periodic updates occurring annually thereafter.

| Conducted by     | Frequency   | Document location |
|------------------|---|-------------------|
| Management staff | <ul style="list-style-type: none"> <li>• 3 months after hire</li> <li>• Annually</li> </ul> | Company files     |

## Job Hazard Prevention

Job Hazard Analysis is used to ensure that all job-related hazards and risks are identified before work begins. The program provides a process to systematically analyze the work from the perspective of safety, quality, materials, equipment and efficiency.

Determining job-associated hazards is comprised of four basic steps:

1. **Create** a *Task Inventory List* through a collaborative process involving management and workers
2. **Identify** hazards associated with the steps of each activity
3. **Develop** *Standard Operating Procedures (SOP)* that describe control measures designed to eliminate or minimize the hazards
4. **Train** workers in the use of SOP's for their activities

## Worksite Hazard Prevention

Worksite Hazard Analysis is used to ensure that hazards and risks encountered on location are identified before work begins. The process will eliminate or minimize hazards that exist at the work site.

Determining work site hazards is comprised of five basic steps:

- **Inspect** the worksite prior to commencing activities
- **Document** the deficiencies
- **Review** potential or actual hazards with the crew members
- **Reappraise** the hazard potentials throughout the project
- **Revise** working practices to accommodate changes

## Emergency Preparedness & Response

### Introduction

Emergency response plans must be in place to limit damage to people, property and the environment in the event of any emergency situation. Emergency preparedness plans and procedures must recognize the needs of the company, its employees, and the community-at-large. A properly implemented Emergency Preparedness and Response Plan will:

- Enable the management to effectively prepare for potential emergency situations
- Allow all employees and workers to respond to emergencies and maintain personal safety
- Perpetuate continual improvement through regular review of the EPR Plan

The company will maintain posted information for emergency response at applicable facilities and worksites.

### Categories of the Plan

ArcTech Welding & Machining will put equipment, trained personnel, and response procedures in place for the following potential emergencies:

- Industrial fire
- Medical (Injury/Death)
- Spills

- Toxic Atmospheres/Confined space

### **Training Process**

- Every employee will receive thorough training and instruction on their roles and responsibilities for the Emergency Response Plan. This training will occur at Orientations, On-the-Job training and safety meetings.
- Management will ensure that employees understand the use of emergency equipment and can implement the procedures in the workplace. Personnel will become familiar with communication devices (cell phones, satellite phones, 2-way radios) and the method of making outside contacts.

### **Annual Review**

To ensure that continual improvement is maintained for emergency response, the company will:

- Evaluate documented data at annual management meetings to determine if changes to the HSE program or the Emergency Preparedness and Response Plan are necessary
- Evaluate inspection report information, employee performance, and safety meeting minutes for additional emergency response considerations.

## Equipment Requirements

### Fire

- 1 – 30lb-BC fire extinguisher mounted in hangers and readily available for use
- 1 – spade shovel

### Medical Aid

- 1 – Level 1 First Aid kit c/w mask
- 1 – portable eye wash kit

### Spills

- Absorbent Sheets
- Spade shovel

### Toxic Atmospheres/Confined Space

- Appropriate PPE and goggles
- Self contained breathing apparatus (SCBA) or supplied air apparatus (SABA)
- Safety harness and line (confined space)
- Two-way radio (confined space)
- Mechanical H<sub>2</sub>S detection device
- Hand held electronic detection equipment for H<sub>2</sub>S, LEL, and O<sub>2</sub>

## General Preparation Issues

BEFORE an Emergency Occurs:

1. Have a planned escape route and know the location of your designated emergency muster site and the alternative sites.
2. Know the wind direction at all times.
3. Know the location of the positive air shut off and burner ignition switches on vehicles equipped with them.
4. Know the location of first aid equipment
5. Know the location of SCBA throughout the site.
6. Practice fire prevention at all times.

## Incident Response – Key Elements

- Immediate assessment of the scene
- Control or eliminate the hazards and assist the injured
- Contact the company emergency numbers
- Contact emergency services for assistance (depending on the situation's severity)

**The first responder or supervisor on site is accountable and responsible to assess the situation and determine if it needs to be treated as an emergency.**

If the situation is an emergency:

- **Activate the company Emergency Response Plan**
- **If it on a customers site the emergency response plan of the operating company must be utilized**

## Fire Response Procedures

### Industrial Fires

In the event of an **industrial fire**, use the procedures below as a guide to your response:

1. Notify other workers to evacuate and move to a safe area
2. If the fire involves fuel, immediately shut off the flow by closing valves activating the emergency shut down switch if you can do so without endangering your personal safety or that of others.
3. Phone the emergency contacts and request assistance
4. **Do not attempt to fight the fire if there is a danger of explosion or flare-ups**
5. When combating the blaze, use available fire extinguishers with a side-to-side sweeping motion aimed at the base of the flames.
6. If you are able to extinguish the fire, re-contact emergency officials and update them on the status of the worksite.
7. If you are unable to fight the fire, maintain a safe distance and keep personnel away from the area. Maintain contact with officials, advising on the fire status
8. Complete an incident report at the completion of the emergency

### Emergency Contacts for Industrial Fires

Contact in the following order:

|  |  |
|--|--|
| General emergency                              | 911  |
| Customer rep or operator                       | As per on site information   |
| Company management                             | Main office – (250) 785-5151<br>Dave Diehl (cell) – (250) 263-3024 |
| Provincial Emergency Program                   | 1-800-663-3456   |
| BC Oil & Gas Commission Hot Line (if required) | (250) 261-5700   |
| WCB  | 785-1283<br>1-866-922-4357 (After Hours)                           |

### Forest Fires

In the event that the industrial fire creates a **Forest fire**, use the procedures below as a guide to your response:

1. If you have received previous fire suppression training and are able to combat the fire, take action (do not place yourself in harms way). If you are unable to combat, extinguish, or contain the fire, contact outside help for assistance
2. Assist in initial attack when help arrives
3. Complete an incident report at the completion of the emergency

### Emergency Contacts for Forest Fires

Contact in the following order:

|                           |                |
|---------------------------|----------------|
| Prince George Fire Centre | 1-800-663-5555 |
| Company Management        | See above      |

## Injury or Death Response Procedures

In the event of a medical response for injury or death, use the following procedures as a guide for your emergency response:

1. Survey the scene. Make sure there is no pending danger to yourself or the injured person
2. Assess the nature of the injuries and condition of the patient and stabilize to the ability of your training and knowledge
3. Call for assistance, using the emergency numbers following these procedures.
4. Convey the condition of the patient
5. State the experience level of the First Aid attendant (Level 1, 3)
6. Describe your location and approximate distance from medical aid
7. If Air Rescue is required, provide the following information:
8. Your position coordinates (Latitude and Longitude)
9. Advise if there are any overhead hazards
10. Provide physical location data (on a road, by a lake, etc.)
11. If you have First Aid training, retrieve your First Aid kit and provide emergency care. If you do not have training, stay with the patient until help arrives, making them as comfortable as possible.
12. When help arrives, render assistance and transport as soon as possible

In the event of serious injury or death, company management will notify the next of kin.

Documentation follow-up

- If you are a First Aid attendant, fill out the treatment book
- Fill out an Incident/Accident Report

**Emergency Contacts for Medical Aid**

Contact in the following order:

|                          |  |
|--------------------------|--|
| Provincial Ambulance     | 911 or 1-800-461-9911  |
| Company management       | Main office – (250) 785-5151<br>Dave Diehl (cell) – (250) 263-3024 |
| Customer rep or operator | As per on site information   |
| RCMP (if required)       | 911 or (250) 787-8100 (FSJ)  |
| WCB                      | 785-1283<br>1-866-922-4357   |

## Spill Response Procedures

In the event of an Industrial spill, use the following procedures as a guide for your emergency response:

1. If the spill involves fuel, immediately shut down source
2. Contain the spill
3. Clean using absorbents
4. If Soil is contaminated, soil must be removed and disposed of at an authorized disposal site
5. Notify Management
6. Complete an Incident report

### Emergency Contacts for Industrial Spills

Contact in the following order:

|                              |  |
|------------------------------|--|
| Company management           | Main office – (250) 785-5151<br>Dave Diehl (cell) – (250) 263-3024 |
| WCB                          | 785-1283<br>1-866-922-4357   |
| Provincial Emergency Program | (250) 261-5700<br>1-800-663-3456                                   |

## Toxic Atmospheres/Confined Space Rescue Response Procedures

Where toxic gases have downed a worker, use the following procedures as a guide for your emergency response:

1. Ensure you are upwind from the toxic gas zone and there are no sources of ignition that could create an explosion potential
2. Immediately request assistance from nearby operators
3. Use the safety lifeline (if in place) to attempt to retrieve the worker
4. **If the worker cannot be rescued via a lifeline, do not enter the zone to assist unless the following are in place:**
  - The primary rescue worker has appropriate PPE in place
  - The primary rescue worker has appropriate breathing apparatus
  - *In the case of confined space entry, additional steps are taken:*
  - The primary rescue worker has a safety harness and lifeline
  - A secondary rescue worker is present outside the confined space or toxic zone
  - There is a means for voice communication or hand signals with the secondary rescue worker
5. Once the injured worker has been removed to a location well outside the toxic zone, provide First Aid to the best of your ability by:
  - Initiating ventilations if the victim is unconscious through the use of a pocket mask or mouth-to-mouth resuscitation
  - Initiate CPR or in the event of heart failure
  - Upon reestablishment of breathing, turn the victim in the recovery position in the event of vomiting
  - Immediately providing oxygen from FA oxygen supplies if available
  - Use blankets or other coverings to reduce the effects of shock
6. If the worker's condition is stabilized, take them to medical aid. If the condition is unstable or CPR has been administered, contact medical assistance for evacuation
7. Complete an Incident report

### Emergency Contacts for Toxic Atmospheres

Contact in the following order:

|                      |   |
|----------------------|---|
| Provincial Ambulance | 911 or 1-800-461-9911   |
| Company management   | Main office – (250) 785-5151<br>Dave Diehl (cell) – (250) 263-3024    |
| RCMP(if required)    | 911 or (250) 787-8100 (FSJ)   |
| WCB                  | 250-785-1283 (Local office)<br>1-866-922-4357 (after hours emergency) |

## Incident Reporting and Investigation

**Incident:** an unplanned event that may or may not result in undesirable consequences. Incidents include accidents, near hit/miss events and unsafe conditions.

**Accident:** an incident that is accompanied by actual negative consequences.

### **Notification and Reporting Procedures**

#### **All Serious, Major, or Critical Incidents**

| Action   | To Who  | Method                     |
|--|---|----------------------------|
| <b>Serious Injury or Death NOTIFY IMMEDIATELY</b>                            | <ul style="list-style-type: none"> <li>• On site supervisors</li> <li>• Company Mgmt</li> <li>• Mgmt to notify WCB</li> </ul> | Phone                      |
| <b>Send report within 24 hrs</b>   | Management – office   | Incident Report Form - fax |
| <b>Non life-threatening injury or property damage NOTIFY BY END OF SHIFT</b> | <ul style="list-style-type: none"> <li>• On site supervisors</li> <li>• Company Mgmt</li> </ul>                               | Phone                      |
| <b>Send report within 3 days</b>   | Management – office   | Incident Report Form - fax |

## All Minor Incidents

| Action   | To Who   | Method                     |
|--|--|----------------------------|
| High risk near miss or minor property damage<br>NOTIFY WITHIN 24 HOURS | <ul style="list-style-type: none"><li>Company Mgmt</li></ul> | Phone                      |
| Send report within 3 days  | Management – office  | Incident Report Form - fax |
| Low risk near miss<br>NO NOTIFICATION REQ                              |  |                            |
| Send report within 2 weeks   | Management – office  | Incident Report Form - fax |

### ***Incident Investigation***

Management will determine what Incidents are to be investigated. As a general rule, however, the following will always prompt an investigation unless otherwise noted:

- Serious Incidents
- Major Incidents
- Critical Incidents

Leaders and management must be involved in any investigation of incidents of a serious or more severe classification. They are also responsible for identifying basic causes and recommendations for prevention of reoccurrence.

### ***Assessment of Recommendations***

Management will review recommendations following every investigation. Annually (or following a critical Incident), all recommendations will be reviewed to evaluate the need for changes to the HSE program.

Recommendations may be implemented in the following areas:

- Design Change
- Training
- Communications and Awareness
- Modifications to Existing Equipment
- Practices and Procedure Development
- Purchase and Use of Additional PPE

## **Health Issues**

### ***Occupational Health and Hygiene***

ArcTech Welding & Machining Ltd. is committed to protecting the occupational health of all employees in the following ways:

- Guidance can be provided for dealing with exposures and hazards and how their recurrence can be prevented.
- Repetitive strain and ergonomics issues are also of concern, and ergonomics training is available to all employees for whom it is needed.

## **Safe Work Practices & Procedures**

- 1) Welding
- 2) Safe Driving
- 3) Mechanical/ Servicing
- 4) Confined Space
- 5) Machining

## **Welding**

|                           |   |
|---------------------------|---|
| <b>Purpose</b>            | <b>This safe work practice describes general guide lines applicable to all welders employed by ArcTech Welding</b>  |
| <b>Identify Hazards</b>   | <ul style="list-style-type: none"><li>• Eye Injuries</li><li>• Electrocutation</li><li>• Fires</li><li>• Explosions</li><li>• Burns</li><li>• Toxic Fumes</li></ul>   |
| <b>Implement Controls</b> | <ul style="list-style-type: none"><li>• Safety glasses</li><li>• Approved welding helmets</li><li>• Safety screens</li><li>• Fire extinguishers</li><li>• Correct PPE</li><li>• Face masks</li><li>• Respirators</li><li>• Gas detecting unit</li><li>• Regular checking of cords and power equipment</li></ul>   |
| <b>Follow Procedure</b>   | <ul style="list-style-type: none"><li>• Safety glasses worn while welding</li><li>• Welding screens put in place to protect fellow workers from injury</li><li>• Remove all combustible materials from work area</li><li>• Identify closest fire extinguisher to job being performed</li><li>• Clearly identify hot metals</li><li>• Vessel to be steam cleaned prior to repair</li><li>• Gas testing of vessel to be carried out prior to commencing repair</li><li>• Regular check fittings on mobile cutting units</li><li>• Correct gloves used, sleeves rolled down while welding and proper steel toed boots worn</li><li>• Face mask with correct filters to be used, utilize fume extracting system when required</li><li>• Ensure all electrical equipment is in good repair before proceeding</li><li>• Where required, elevate work area above surface of water</li><li>• When necessary, clear water with rubber scraper from work area</li></ul> |
| <b>Regulations</b>        | <ul style="list-style-type: none"><li>• WCB Regulations</li><li>• WHMIS</li></ul>   |

## ***Safe Driving***

|                           |   |
|---------------------------|---|
| <b>Purpose</b>            | This safe work practice describes general guidelines applicable to all vehicles operated by ArcTech Welding & Machining workers.  |
| <b>Identify Hazards</b>   | <ul style="list-style-type: none"><li>• Poor driving conditions (road and weather)</li><li>• Vehicle disrepair</li><li>• Unsafe driving habits</li><li>• Driver fatigue</li></ul>   |
| <b>Implement Controls</b> | <ul style="list-style-type: none"><li>• Seat belts</li><li>• Vehicle Pre-trip inspections</li><li>• Communication equipment</li></ul>   |
| <b>Follow Procedures</b>  | <ul style="list-style-type: none"><li>• Perform Pre-trip inspection before starting vehicle</li><li>• Always wear a seat belt</li><li>• Practice defensive driving (i.e. pass safely, no speeding, no tailgating)</li><li>• Slow down on rough roads or in poor weather</li><li>• Avoid use of stimulants</li><li>• Never drive drowsy; pull over and sleep</li></ul> |
| <b>Regulations</b>        | <ul style="list-style-type: none"><li>• Motor Vehicle Act</li><li>• National Safety Code</li></ul>  |

## ***Mechanical / Servicing***

|                           |   |
|---------------------------|---|
| <b>Purpose</b>            | This safe work practice describes basic directions for safe operations while performing mechanical or servicing work on ArcTech equipment.  |
| <b>Identify Hazards</b>   | <ul style="list-style-type: none"><li>• Falling and crushing objects</li><li>• Burns</li><li>• Respiratory damage</li><li>• Fire or explosions</li><li>• Eye injuries</li><li>• Slipping/Tripping</li><li>• Energy state (zero)</li></ul> |
| <b>Implement Controls</b> | <ul style="list-style-type: none"><li>• Equipment and facility inspections</li><li>• Appropriate PPE</li></ul>  |

- Ventilation
- Fire Extinguishers
- Lockout/restrained

#### **Follow Procedure**

- Only attempt mechanical lifting with approved lifting devices with appropriate weight rating
- Understand the chemicals that are in use and follow all precautions as specified on MSDS
- Ensure adequate ventilation, especially when operating combustion engines inside shop facilities
- Store all flammable products in designated areas
- Be familiar with the locations of fire extinguishers, eye wash stations, first aid kits, and evacuation plans
- Keep floor clear of unnecessary clutter
- Ensure necessary hoses and cords are laying flat on the floor to avoid tripping hazard

#### **Regulations**

- WCB Regulations
- Fire Code
- WHMIS

## ***Confined Space***

**Purpose** This safe work practice outlines procedures for working in a confined space.

### **Identify Hazards**

- Toxic atmospheres
- Fire and explosions
- Unstable overhead debris
- Engulfment
- Entrapment
- Hazardous substances

### **Implement Controls**

- Appropriate PPE including rubber boots and gloves
- Safety harness and lanyard
- Gas monitors
- Breathing air (if required)
- Fire extinguishers
- Safety watch
- Lockout/blinded

### **Follow Procedure**

- Review with supervisor, job details including physical characteristics of area to be entered, and potentially hazardous substances in the work space
- Fill out Confined Space Permit
- Test atmosphere for oxygen, H<sub>2</sub>S, LEL, and CO before entrance and every 20 minutes during work.
- Lockout/ blind all energy sources
- Identify Safety watch and post at entrance
- Place fire extinguishers at entrance
- Eliminate all ignition sources within explosive environments: i.e. electrical equipment, single action lighters, exposed metal surfaces on tools being used, etc.

### **Regulations**

- WCB Regulations
- WHMIS

## ***Machining***

**Purpose** This safe work practice outlines procedures for working in and around the machine shop..

### **Identify Hazards**

- Moving Parts
- Eye Injuries
- Cuts and Abrasions
- Slipping Hazards
- Hearing Loss or Damage
- Back Injuries
- Tripping Hazards
- Electrocutation
- Fires
- Explosions
- Burns
- Toxic Fumes

### **Implement Controls**

- Safety glasses, face shield or welding helmet
- Welding screens
- Absorbent material
- Ear plugs or ear muffs
- Overhead cranes and mechanical lifting devices
- Regular checking of cords and power equipment
- Safety glasses
- Approved welding helmets
- Fire extinguishers
- Correct PPE
- Face masks
- Respirators

#### **Follow Procedure**

- No general purpose gloves around drill presses or lathes
- Safety glasses to be worn at all times in the machine shop.
- General purpose gloves to be worn where required
- Oil and substance spills to be cleaned up immediately. Absorbent material to be placed over spill as soon as possible.
- Ear plugs or muffs to be worn where required
- Use mechanical devices to assist with lifting where applicable. Use correct lifting techniques and request help when required.
- Regularly complete housekeeping. All power leads and air hoses to be rolled up and kept off the floor.
- Ensure all electrical equipment is in good repair before proceeding
- Safety glasses worn while welding
- Welding screens put in place to protect fellow workers from injury
- Remove all combustible materials from work area
- Identify closest fire extinguisher to job being performed
- Clearly identify hot metals
- Regular check fittings on mobile cutting units
- Correct gloves used, sleeves rolled down while welding and proper steel toed boots worn
- Face mask with correct filters to be used, utilize fume extracting system when required

#### **Regulations**

- WCB Regulations
- WHMIS

## **Employee Orientation Overview**

|                            |   |
|----------------------------|---|
| <b>General Orientation</b> | <p>A general indoctrination should include, at a minimum, a review of:</p> <ul style="list-style-type: none"><li>• The company health and safety policy;</li><li>• Basic knowledge of the appropriate Provincial Regulations;</li><li>• Hours of work;</li><li>• Pay procedures and policies;</li><li>• Employee benefits;</li><li>• Training; HSE Orientation, Standards, Codes of Practice, Ergonomics, Hazard ID and Control, Written Procedures</li><li>• Administrative practices;</li><li>• Safety program;</li><li>• Safety rules;</li><li>• Company history, products, and organization;</li><li>• Work area background and organization.</li></ul>   |
| <b>On-the-job Training</b> | <p>Job indoctrination, including a guided tour of the work area, is also the responsibility of the immediate supervisor. The supervisor should:</p> <ul style="list-style-type: none"><li>• Introduce the new employee to co-workers;</li><li>• Show the employee where to find first aid stations and emergency care equipment, and explain available medical services;</li><li>• Demonstrate proper use of safety equipment;</li><li>• Demonstrate safe operation of equipment;</li><li>• Point out bulletin boards;</li><li>• Discuss the importance of the employee's job quality, efficiency, productivity, and safety, and explain that it is important to the employee's success with the company;</li><li>• Review procedures as it applies to equipment and safety</li></ul> |