

Gradex Consulting Ltd.
Safety Manual
2005

Gradex Consulting Ltd.

Policies

Summary

The Health and Safety Manual contains information and the recommended procedures for operations management personnel to effectively implement a successful Health and Safety Program. The purpose of this manual is to serve as a source for management, crew chiefs and employees in the prevention of control or loss producing activities and conditions. It provides the necessary information to comply with Alberta Occupational Health and Safety Legislation as well as offering ideas and suggestions that have proven successful in promoting active participation in Health and Safety Programs.

This program applies to all employees of Gradex Consulting Ltd. Involvement by all personnel is necessary to ensure a consistent message. This includes management, administration, and field personnel.

The contents address issues related to employee training and performance, equipment use and safety, medical emergencies, record keeping and regulatory compliance. Employee injuries, vehicular accidents, property damage and general liability claims can be prevented or measurably reduced through consistent application of the tools obtained in this manual.

Occupational Health and Safety Policy

At Gradex Consulting Ltd., we are committed to a safe, healthy lifestyle and demonstrate this through care and concern for people. We believe that safety, quality and productivity are mutually dependent and when diligently managed will provide challenging and satisfying work experiences in a safe and healthy environment.

In order to fulfill this commitment, our Managers, Crew Chiefs, Employees and Contractors are responsible for the application of the following Health and Safety Elements:

◆ **Leadership and Administration**

Our commitment to Health and Safety is communicated and implemented throughout using business planning and performance management processes.

◆ **Hazard Management**

Hazards are identified, risks evaluated and appropriate control measures established. Elements of this process are risk/hazard assessment, emergency planning, health and hygiene, personal protective equipment and work standards.

◆ **Competency and Training**

Through task analysis we identify the competencies our employees require and ensure they have the appropriate qualifications, training and experience to safely perform the assigned tasks.

Gradex Consulting Ltd.

Policies

We monitor the effectiveness of our Health and Safety management system and implement changes to continually improve our performance. Elements of this process are inspections and audits, incident investigation, claims management and promotion of a healthy and safe lifestyle.

It is the desire of Gradex Consulting Ltd. to promote safety awareness, with it becoming a part of our daily routines. Management sets the tone of how employees respond to the health and safety message. When the management/ supervisory team demonstrates their support with enthusiasm and by example, the results are always positive. Management leadership and participation makes Health and Safety come alive in the minds and actions of employees.

Safe behaviour equals safe performance. To achieve this requires more than consistent and effective training and safety rules (coupled with disciplinary procedures for violators). Desired behaviour by its very nature always seems to excel when training, rules and safe work procedures are reinforced with challenges and opportunities for recognition and reward.

As President of Gradex Consulting Ltd., I expect compliance with regulatory requirements, standards, site procedures and the continuous improvement of these processes.

*** The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Jeff Pauls, President

Date

Gradex Consulting Ltd.

Roles

Summary

Occupational Health and Safety is a co-operative task in which management assumes the majority of responsibility. The Gradex Consulting Ltd. Health and Safety Program has been developed to assist management in meeting that responsibility. Operations management is responsible for administering and implementing this program in actions that will increase employee health and safety awareness.

Each employee must be concerned for his or her own health and safety while at work. Each employee should be furnished with a copy of all Employee Safety Responsibilities commensurate with their duties or upon promotion to a new position.

To make this Occupational Health and Safety Program successful, each member of management and each employee must recognize, accept and carry out their responsibilities. The responsibilities for each of following will be covered:

- ◆ Manager(s)
- ◆ Health and Safety Manager
- ◆ Crew Chiefs
- ◆ Employees

Gradex Consulting Ltd.

Roles

Manager(s)

The **Manager** is responsible for administering the Occupational Health and Safety Program as it applies to their operations. This is done by:

1. Instilling a positive attitude toward safety through all levels of management by action and example.
2. Adopting as policy all applicable parts of the manual to Occupational Health and Safety Management including written compliance programs required by Occupational Health and Safety.
3. Implementing such others as Company Policies and Programs regarding employee safety and health as may be necessary or appropriate.
4. Maintaining individuals who continually demonstrate their ability to effectively administer the Health and Safety Program as determined through their standards or performance. This element of management should become an integral part of every supervisor's standards of performance and job objectives.
5. Ensuring new employee orientation and training, routine training and all training required by Occupational Health and safety is conducted in a timely fashion. This includes annual refresher training.
6. Establishing controls to ensure uniform performance and compliance with Health and Safety requirements.
7. Review information on major and minor injuries and accidental losses within 8 hours.
8. Investigating the scene of any major accident or catastrophe, ensuring that everything is under control, then beginning an immediate review of the circumstances with investigating personnel.
9. Participate in the review and examination of all fatal accidents and major incidents for the purpose of identifying contributing factors, causes and corrective action.
10. Establishing Job Hazard Analysis procedures and ensuring they are properly administered.
11. Establishing housekeeping, employee exposure, safety and fire inspection programs, and participating periodically in the inspection of various areas.
12. Establishing an emergency action plan as well as procedures to protect employees, the operations and the community from potentially serious exposure to fires, accidents, natural and civil disasters.
13. Demonstrate support for the safety program by attending scheduled employee safety meetings.
14. Require a safety inspection by the appropriate personnel before new equipment or modified existing equipment is placed into operation.
15. Performing an annual comprehensive Health and Safety Program review.

Gradex Consulting Ltd.

Roles

Health and Safety Manager

The **Health and Safety Manager** is responsible for the development and administration of the Health and Safety Program. Responsibilities include:

1. Administer an Occupational Health and Safety Program commensurate Alberta Occupational Health and Safety Legislation.
2. Communicate immediately with the Manager or their designate concerning major accidents, any significant first aid, non-injury accidents and any illnesses.
3. Hold at least one safety meeting monthly with employees and any time there is a change in operations.
4. Ensure unsafe practices and conditions are corrected.
5. Coordinate or provide new employee orientation and training, routine training, retraining and all training required by Occupational Health and Safety. This includes operations, safety and annual refresher training.
6. Develop and maintain a record keeping system to record and track accidental losses. This includes employee injuries, lost time, vehicle accidents, property damage and general liability claims.
7. Verify through certification that a hazard assessment has been conducted to determine if personal protective equipment is needed and that all employees have been trained on the use of the protective clothing and equipment required for their particular jobs. These include safety glasses, appropriate shoes, safety gloves, and hearing protection.
8. Ensure all work related injuries and illnesses, vehicle accidents, property damage and general liability claims are investigated. Make certain accident investigation reports are prepared in a timely manner.
9. Promote attitudes conducive to the prevention of accidents by example, wearing required and recommended personal protective equipment when in the work area, and by close follow-up of the safety activities of all employees, as well as discussing safe work practices with individual employees.
10. Establish departmental goals for satisfactory housekeeping and fire prevention in their areas of responsibility. Participate in the inspection program in keeping with established requirements.
11. Ensure emergency team members at each location know their assigned responsibilities and are trained to perform their duties.
12. Be responsible for enforcement of all safety rules and regulations issued by Management.
13. Establish detailed procedures for Job Hazard Assessments, Safe Work Procedures, Property Conservation, Emergency Conditions, and Environmental Control. Solicit and encourage supervisor and employee participation in these activities.
14. Coordinate, or assist in coordinating the establishment of local procedures for WCB claims, in accordance with Corporate Insurance Procedures.
15. Perform program review evaluations on various locations annually.

Gradex Consulting Ltd.

Roles

Supervisors/ Crew Chiefs

Crew Chiefs are responsible for the safety of all employees assigned to them. They must be thoroughly familiar with the jobs being performed under their supervision and see that the safe procedures are followed. They should:

1. Ensure that they and their employee(s) attend all scheduled safety meetings.
2. Make safety contacts with employee(s) on a regular basis.
3. Make safety observations of each of their employees on a regular basis especially when a new employee is assigned to the crew chief.
4. Periodically inspect tools and equipment, remove from service any found to be defective.
5. Become familiar with the Company's Personal Protective Equipment Program. Issue and require employees to wear proper safety equipment and protective clothing required for their jobs. Ensure employees are properly trained in the use of such equipment and clothing.
6. Promptly report work related injuries including first aid cases. Likewise, report all property damage accidents including those with or without bodily injury. Prepare an accident investigation report cooperatively with management on all of the above.
7. Always be aware of the "near miss" which may be a symptom of an exposure or physical hazard about to occur. Correct immediately if possible.
8. Be responsible for safety and housekeeping conditions in their area and participate in the inspection program in keeping with established requirements.
9. Constantly watch for and correct unsafe practices and conditions.
10. Instruct new employees in recommended safe work procedures before any new assignment.
11. Be responsible for the enforcement of all safety rules and regulations issued by management.

Gradex Consulting Ltd.

Roles

Employee

Employee responsibility for Health and Safety include the following:

1. Work safely at his or her job.
2. Having respect at all times for the health and safety of fellow employees.
3. Using his/her knowledge and influence to prevent accidents.
4. Calling attention to unsafe practices and unsafe conditions.
5. Contributing his/her ideas, suggestions and recommendations for the improvement of workplace Health and Safety.
6. Having regard for and using the personal protective equipment provided to him/her. Become well informed and trained in the proper use and care of any personal protective equipment provided or required by the company.
7. Understanding and following the rules or safe practices as they apply to his/her job. Become well informed about the materials, chemicals and products in their surroundings and how or where to obtain additional information.

Gradex Consulting Ltd.

Hazard Assessment

Hazard Assessment Checklist - Step #1

Address: _____	Date: _____	Time: _____
Assessment Team: Name: _____ Position: _____		

* Priority Status for Corrective Action #1 very hazardous, previous accident or high potential of accident
 #2 hazardous with moderate risk
 #3 low risk
 #4 O.K.
 #5 not applicable (N/A)

Item #	Identified Hazards (Activities and Conditions)	Status (Priority) (1,2,3,4,5)	Safety Hazard and Location
1	Safety Program		
	Company Safety Policy and Manual		
	Worker Training		
	Copies of OH & S and Regs Available		
	Tool Box Meetings		
2	Potential Hazards		
	Falling Objects		
	Paint Vapors		
	Covering of Dangerous Holes and Openings		
	Excavations/ Trenching		
	Uneven Ground		
	Roofing		
	Framing		
	Proper Lifting Techniques		
	Extension Cords (strung out of the way)		
3	First Aid		
	Supplies		
	Personnel		
	Records		
4	Fire Prevention		
	Fire Extinguishers		
	Fire Department Assistance		

Note: For Corrective Action, transfer information by priority number (i.e., 1,2,3,4,5) to step #2 "Workplace Hazard Assessment"

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Cell Phone Usage
GENERAL	Protecting workers from injuries associated with the IMPROPER use of cell phones while operating a motor vehicle.
APPLICATION	Using a cell phone improperly while operating a motor vehicle may be hazardous to the worker and general public.
PROTECTIVE MECHANISMS	Safe work procedure Highway Traffic Act Local Regulations Manufacturer's Recommendations
SELECTION AND USE	Safe work procedure Manufacturer recommendations
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Enforcement Compliance
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Make driving your first priority. 2. Whenever possible, let your Voice Mail take your incoming calls. 3. Do not engage in stressful or emotional conversations. 4. Utilize a hands-free device if necessary. 5. Ensure you know your wireless phone and its features such as speed dial and redial. 6. Avoid taking notes or looking up phone numbers while driving. 7. <u>Ensure cellular phones are turned off when refueling.</u>
* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Confined Space Entry
GENERAL	Protecting workers from injuries associated with working in confined spaces
APPLICATION	Primary function is something other than human occupancy: and – has restricted entry and exit; and may contain potential or known hazards.
PROTECTIVE MECHANISMS	Safe job procedure Permit system PPE Site specific entry program ERP (Emergency Response Plan)
SELECTION AND USE	As per job requirement and site specific entry
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements including Confined Space Entry and Emergency Egress procedures
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Worker must be competent in confined space entry to identify the work procedures required to enter the confined space. 2. Ensure that there is reasonable means of egress from all parts of the confined space. 3. Ensure that ventilation and purging is established and allows acceptable air levels to be achieved and maintained. 4. Establish method of communication to allow immediate contact with necessary personnel if rescue or assistance is required, confirm alarm system. 5. Worker must be trained in H2S Alive or equivalent. 6. Before entry, the vessel or confined space must be tested by a competent worker wearing breathing apparatus, for oxygen content, combustible gas (L.E.L.) and hydrogen sulfide. 7. Continuous monitoring may be required of the vessel or confined space atmosphere to detect changing conditions. 8. Worker must be conversant with Rescue Procedures.
<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Driving
GENERAL	Protecting workers from injuries associated with driving operations.
APPLICATION	Operation of motor vehicles must be performed according to all vehicle codes, traffic laws, company procedures, and manufacturer’s recommended operating guidelines.
PROTECTIVE MECHANISMS	Safe work procedure Highway Traffic Act Company Rules Manufacturer’s Recommendations
SELECTION AND USE	As per safe work procedure Company Rules Manufacturers Recommendations
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Compliance Enforcement
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you have a valid operators license. 2. Be conversant with traffic laws and regulations. 3. Drive defensively. 4. Back in when practical. 5. Ensure the vehicle has an emergency road kit. 6. Ensure you are not under the influence of alcohol or drugs. 7. Avoid driving when fatigued. 8. Ensure seatbelts are worn at all times when traveling. 9. Be familiar with vehicle and its capabilities. 10. Avoid offering rides to strangers or hitchhikers. 11. Perform a “walk around” prior to traveling. 12. Use good judgment and understand the basic recovery skills appropriate to the vehicle you are driving. 13. Refer to SWP for “Cell Phone Use in Vehicles”.
* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Driving (Winter)
GENERAL	Protecting workers from injuries associated with winter driving
APPLICATION	Operation of motor vehicles must be performed according to all vehicle codes, traffic laws, company procedures, and manufacturer’s recommended operating guidelines.
PROTECTIVE MECHANISMS	Safe work procedure Highway Traffic Act Company Rules Manufacturer’s Recommendations
SELECTION AND USE	As per safe work procedure Company Rules Manufacturer’s Recommendations
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Compliance Enforcement
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you have a valid operators license. 2. Be conversant with traffic laws and regulations. 3. Drive defensively. 4. Back in when practical. 5. Ensure the vehicle has an emergency road kit. 6. Ensure to clear snow from all windows, lights and mirrors. 7. Avoid using cruise control on icy roads. 8. Accelerate and brake gently to reduce skids or spinouts. 9. Ensure winter clothing does not restrict movement, vision or hearing. 10. Ensure fuel tank is full when possible. 11. Ensure you are familiar with the installation of snow chains. 12. Monitor weather reports. 13. Refer to SWP for “Cell Phone Use In Vehicles”.
* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Hazard Control Signage
GENERAL	Protecting workers from injuries associated with improper use of warning signs
APPLICATION	Work sites should have appropriate and adequate signage to identify site hazards in place prior to the commencement of any work process.
PROTECTIVE MECHANISMS	Safe work procedures Government regulations Local jurisdictions Worksite traffic guidelines PPE
SELECTION AND USE	As per safe work procedures
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Signage selection Hazard analysis
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure signage is in good condition, clean, legible and suited to the purpose. 2. Ensure traffic control signage is to be of accepted standards. 3. Ensure signage is secured. 4. Routinely inspect signage for placement, cleanliness and physical damage. 5. Ensure road traffic control signage is covered when no activity is present. 6. Ensure you are fully trained to erect road traffic signage.
* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Manual Lifting And Carrying
GENERAL	Protecting workers from injuries associated with material lifting and carrying.
APPLICATION	Most lifting accidents are due to improper lifting methods. All manual lifting should be planned and safe lifting procedures followed.
PROTECTIVE MECHANISMS	Permit system Safe work procedure Safe lifting procedures PPE ERP (Emergency Response Plan)
SELECTION AND USE	As per safe work procedure Safe lifting procedure
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Selection of lifting equipment
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure that you know your physical limitations and the approximate weight of materials. 2. The use of power equipment or mechanical lifting devices should be considered and employed where practical. 3. Obtain assistance in lifting heavy objects. 4. Ensure a good grip before lifting and employ proper lifting technique. 5. Avoid reaching out. 6. Pipes, conduit, reinforcing rods and other conductive materials should not be carried on the shoulder near exposed live electrical equipment or conductors. 7. Be aware of hazardous and unsafe conditions.
<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Motor Vehicle Operation
GENERAL	To ensure all employees and contract staff whose work requires operation of a motor vehicle do so safely and are in compliance with all vehicle codes, traffic laws, company procedures, and manufacturer's recommended operating guidelines.
APPLICATION	This practice applies to all operation of motor vehicles to conduct business matters.
PROTECTIVE MECHANISMS	Traffic Safety Act and Regulation Company Rules Manufacturer's recommendations
SELECTION AND USE	As per safe work procedure Company Rules Manufacturer's recommendations
SUPERVISOR RESPONSIBILITY	<ul style="list-style-type: none"> ▪ Supervisors are responsible to facilitate and/or provide proper instruction to employees on protection requirements ▪ Compliance ▪ Enforcement
EMPLOYEE RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you have a valid Alberta operator's license. 2. When operating your own, ACSA owned, or a rental motor vehicle on company business, employees are to notify appropriate Regional Manager of intended travel route, report all vehicle accidents, or any other circumstances. 3. Assure compliance with Working Alone Safety legislation. 4. Lock doors. 5. Drive defensively. 6. Back in when practical. 7. Ensure vehicle has an Emergency Road Kit. 8. The operation of any motor vehicle for company business is prohibited when the driver is fatigued, consumed alcoholic beverages or drugs causing impairment, or when the road authority does not recommend travel. 9. Drivers and passengers must wear seatbelts at all times. 10. Be familiar with the vehicle and its capabilities. 11. Do not offer rides to hitchhikers or strangers.
<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Office Safety
GENERAL	Protecting workers from injuries associated with office environment
APPLICATION	To ensure employees are aware of the potential and existing hazards in the office environment
PROTECTIVE MECHANISMS	Safe work procedures ERP (Emergency Response Plan) Manufacturers recommendations Alberta Fire Code Local Legislation MSDS Working Alone Policy
SELECTION AND USE	As per safe work procedure ERP MSDS
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you are conversant with emergency evacuation. 2. Ensure that all electrical cords are in good condition and are not overloaded. 3. Ensure that computer monitors are adjusted to correct height and kept clean. 4. Ensure fans/space heaters are used to manufacturer specifications. 5. Ensure floors and aisles are kept clear and not cluttered. 6. Ensure that only one drawer of filing is open at one time and that drawers are closed when not in use. 7. Ensure proper type of fire extinguisher is available. 8. When transporting materials of a heavy nature ensure that handcarts and trolleys are used properly. 9. Operate microwave according to manufacturers specifications. 10. Ensure coffee makers are used according to manufacturer specifications. 11. Ensure photocopier is maintained according to manufacturers specifications. 12. Ensure chairs are in good repair. 13. Ensure rugs are kept clean and in good repair – free of tripping hazard. 14. Ensure paper cutter blade is placed in closed lock position. 15. <u>Ensure all loose clothing is tied back when using paper shredder.</u>
<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Power and Hand Tool Use
GENERAL	Protecting workers from injuries associated with the use of power and hand tools
APPLICATION	Power tools and hand tools to be used and maintained in compliance with manufacturers guidelines.
PROTECTIVE MECHANISMS	Safe work procedures Permits {if required} PPE Manufacturers specifications ERP (Emergency Response Plan)
SELECTION AND USE	As per job requirement
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Review the project and prepare a list of required tools.
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Electrical tools must have 3 wire (grounding) cord and plug, excluding double insulated tools. 2. Grinder discs, buffers and stones to be used only for designed application and at rated speed. 3. Stationary grinders must have properly adjusted tool rests and stones to be properly dressed. 4. Angle grinders to have Original Equipment Manufacturer (O.E.M.) guard. 5. On/off switches must be functional and positioned so Operator has access. 6. Accessories can only be used that are designed for use with the tools specified. 7. Saw blades must be designed for the product being cut and at the rated speed, O.E.M. guards must be in place and functional. 8. Chisels, punches, hammer, wrenches, etc. to have all burrs ground from striking area. 9. Chisels, punches, screwdrivers, etc. to have tips properly dressed. 10. Cracked a/o splintered handles to be replaced. 11. All tools must be cleaned after use and repairs made before being properly stored. 12. Tools to be used for designed purpose only. 13. Qualified personnel, using O.E.M. parts or equivalent, must perform repairs to tools.
<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Spray Painting
GENERAL	Protecting workers from injuries associated with spray painting operations
APPLICATION	Spray painting is an integral part of construction work, which must be performed by trained workers.
PROTECTIVE MECHANISMS	Safe work procedure Chemical hazards regulations Occupational exposure limits MSDS WHMIS Permit system PPE ERP (Emergency Response Plan)
SELECTION AND USE	As per safe work procedure MSDS
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training. Selection of equipment Hazard analysis
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you are fully trained. 2. Ensure you are conversant with safe work procedures. 3. Follow manufacturers recommendations. 4. Ensure all sources of ignition are eliminated. 5. Ensure equipment is grounded. 6. Ensure area is ventilated. 7. Do not smoke around spray painting operations. 8. Ensure warning signs are in place. 9. Practice good housekeeping.
* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Use Of Portable Fire Extinguishers
GENERAL	Protecting workers from injuries associated with IMPROPER use of fire extinguishers
APPLICATION	Portable fire extinguishers must be installed, inspected and maintained on a regular basis to ensure proper operation in an emergency.
PROTECTIVE MECHANISMS	Safe work procedure Alberta Fire Code Manufacturers recommendations PPE
SELECTION AND USE	As per safe work procedure Alberta fire code Manufacturers recommendations
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Proper selection of equipment Conversant with proper regulations
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you are fully trained with operation and maintenance of fire extinguishers. 2. Check Cylinder. 3. Inspect cartridge puncture cap. 4. Weigh cartridge. 5. With cartridge removed, check action of puncture lever. 6. Check hose and nozzle for obstruction. 7. Check date of manufacture. 8. Check level and condition of powder. 9. Check fill-cap threads and gasket. 10. Attach visual seal. 11. Check Pressure Gauge.
<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>	

Gradex Consulting Ltd.

Safe Work Practices

SAFE WORK PRACTICE

TITLE	Working In Hills And On Slopes
GENERAL	Protecting workers from injuries associated with working in hills and on slopes
APPLICATION	Working in hills and on slopes is an integral part of pipeline/construction activity, requiring proper planning prior to work.
PROTECTIVE MECHANISMS	Safe work procedures Permit system Manufacturers specifications Government Regulations Barricades and warning devices ERP (Emergency Response Plan) PPE
SELECTION AND USE	As per safe work procedure
SUPERVISOR RESPONSIBILITY	Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training Hazard analysis Work site inspection
WORKER RESPONSIBILITY	<ol style="list-style-type: none"> 1. Ensure you are conversant with ERP. 2. Ensure warning signs/devices are in place. 3. Ensure you are familiar with restraining devices and rigging. 4. Ensure you are familiar with the use of anchors, bridals and winches. 5. Be familiar with anchoring of pipe/equipment. 6. Ensure you are in view of operator at all times. 7. Ensure you wear appropriate PPE (including high visibility vests). 8. Ensure wheel chocks are utilized. 9. Be aware of rolling boulders or loose rocks.
* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.	

Gradex Consulting Ltd.

Safe Job Procedures

JOB: Land Surveying

DEVELOPED BY: 1. Christian Mandin 2. Michelle Lloyd Date: Oct 25/04

APPROVED BY: _____ Date: _____

REVISED BY: 1. _____ 2. _____ Date: _____

EQUIPMENT REQUIRED

MATERIAL REQUIRED

PPE

1 - 30M measuring tape
2 - 5M measuring tapes
1 - Axe
1 - 4M measuring rod
1 - transit level
1 - tripod
1 - stake bag
1 - hand level

stakes
markers
pencil
flagging

hardhat
safety vest
steel toe boots

JOB STEPS:

1. Get out of vehicle. Watch for traffic.
2. Look for hazards on lot such as:
 - a) construction next door
 - b) construction over head
 - c) open holes
 - d) open basements
 - e) heavy machinery
 - f) traffic in the area
 - g) debris on lot

The crew chief then fills out hazard assessment, taking note of which hazards are on site and communicating them to chain person

3. Crew chief to grab measuring tape. Chain person to follow, carrying stake bag and axe.
4. Measure off house, pound stakes (see SJP: Pounding Stakes) and set grade.
5. Crew chief gets back in the truck to get paperwork ready while chain person sets up tripod and level.
6. Crew chief sets up tripod; chain person gives B.O.W. or benchmarks of existing areas.
7. Both parties return to the truck again. Chain person takes apart level while crew chief calculates numbers. Chain person then flags and marks stakes. Once calculations are complete;
8. Elevations are marked on stakes and both parties return to the truck to proceed to next lot.

<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>
--

Gradex Consulting Ltd.

Safe Job Procedures

JOB: Pounding Stakes

DEVELOPED BY: 1. Christian Mandin 2. Michelle Lloyd Date: Oct 25/04

APPROVED BY: _____ Date: _____

REVISED BY: 1. _____ 2. _____ Date: _____

EQUIPMENT REQUIRED

MATERIAL REQUIRED

PPE

1- Axe
1 – Staking bag

stakes

hardhat
safety vest
steel toe boots

JOB STEPS:

1. Check for splintering or cracks on handle of axe. Check for loose or rusting heads.
2. Spread legs shoulder width apart.
3. Grip bottom or middle of axe with one hand, using the other hand to grasp and balance the stake.
4. Tap in stake with butte of axe.
5. Back up, reposition and firmly pound in stake

<p>* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.</p>
--

Gradex Consulting Ltd.

Safe Job Procedures

JOB: Painting Stakes

DEVELOPED BY: 1. Christian Mandin 2. Michelle Lloyd Date: Oct 25/04

APPROVED BY: _____ Date: _____

REVISED BY: 1. _____ 2. _____ Date: _____

EQUIPMENT REQUIRED

MATERIAL REQUIRED

PPE

_____	stakes	Safety gloves
_____	green spray paint	safety glasses
_____	_____	_____
_____	_____	_____

JOB STEPS:

1. Remove plastic covering from stakes. Watch for staples and nails.
2. Make sure you are in a well-ventilated area.
3. Ensure flat ends of stakes are facing exterior of stack.
4. Make sure that all vehicles are removed from area where spraying will occur.
5. Carefully spray end of each stake, ensuring that end has an even light coat.

* The information presented in this publication is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this publication from their responsibilities under applicable legislation.

Gradex Consulting Ltd.

Rules

Summary

This company is operated for the purpose of providing a service to its customers in a safe and efficient manner. To accomplish this goal, it is necessary to have certain policies, procedures and rules governing the activities and conduct of all employees. Gradex Consulting Ltd. is committed to conducting its business in a safe and fair manner for all employees.

This section explains the general safety rules and rules pertaining to personal protective equipment (PPE) and accident reporting. Employee compliance and non-compliance with company's policies and procedures will also be documented. The general company rules are to be posted in all workplaces including the office and company vehicles.

Gradex has instituted a Health and Safety Program in compliance with Occupational Health and Safety to encourage all employees to be safety conscious and to be active participants in creating and maintaining a safe work environment.

Every employee, regardless of position, is expected to share this responsibility. Each individual is responsible for keeping his/her vehicle, tools and equipment in a clean and safe condition.

The Rules are intended to protect employees against possible injury or accident. Any employee violating these rules or others that may be established may be subject to disciplinary action.

Gradex Consulting Ltd.

Rules

- Accidents, injuries or “near misses”, regardless of their nature, shall be promptly reported to management or safety coordinator immediately.
- Approved Personal Protective Equipment shall be worn when and where required on the job by ALL personnel.
- Smoking is permitted only in designated areas. Smoking in Gradex Consulting Ltd. company vehicles is not permitted.
- Running is not permitted anywhere, except in the case of extreme emergency.
- The use of threatening or abusive language or action, or any harassment, discourteous, indecent, or immoral conduct directed toward any employee, customer or member of the public while on duty will not be accepted.
- Hand tools shall not be used for any purpose other than that intended. All damaged or worn parts shall be promptly repaired or replaced, as well as reported to management or the safety coordinator immediately.
- Making false or malicious statements about the company, a fellow employee or a customer is not permitted.
- Theft or attempted theft of property of the company, a fellow employee or any customer is grounds for dismissal.
- Possession or use of intoxicating beverages or unauthorized drugs on job sites or within a reasonable amount of time of operating company vehicles is strictly forbidden and constitutes grounds for dismissal.
- All personnel are expected to obtain a reasonable quantity of sleep. Failure to do so may result in disciplinary and corrective measures to be taken. (Please refer to Workplace Health & Safety Bulletin ERG207)
- Horseplay, FIGHTING, gambling and possession of firearms are strictly forbidden on all Gradex Consulting Ltd. job sites and constitute grounds for dismissal.
- First aid treatment is to be obtained for any/all injuries and reported to management or the safety coordinator immediately.
- Dishonesty or falsification of any company record or document will not be permitted.
- All work shall be carried out in accordance with both company policies and Occupational Health and Safety Regulations and Code.
- Maintain good housekeeping in your work area at all times.
- Operate all vehicles in accordance with site rules, company rules and highway regulations. Failure to do so will result in disciplinary action being taken.
- Company vehicles are to be kept clean inside and outside at all times.
- Anyone who operates a company vehicle is required to possess a class five (5) operators license and that they report all vehicular violations and citations within thirty (30) days of conviction. Driver abstracts are required upon new employment or seasonal return or upon request from management.

Company Vehicles

- Due to insurance regulations, vehicles are not to be used for personal use without permission.
- Be responsible for the care and safety of the vehicle during the shift and perform regular inspections on the vehicle.
- Maintain control of your vehicle at all times.

Gradex Consulting Ltd.

Rules

- Keep the cab of the vehicle free from clutter at all times.
- Adjust speed and operation of the vehicle to road, weather and traffic conditions.

Responsibilities of ALL Employees

- We are all obligated to comply with regulations, standards and various site procedures.
- Everyone must successfully complete an orientation program.
- We are all responsible to know the health and safety program information relevant to each job.
- Everyone is obligated to actively participate in safe work planning prior to starting a job, to identify hazards, put in place hazard controls, and communicate with coworkers on site.
- Each person is responsible for familiarizing themselves with the Emergency Response Plan and conducting themselves in an appropriate and expeditious manner.
- Everyone is responsible for obtaining, maintaining and using the required Personal Protective Equipment.
- Everyone is to attend weekly safety meetings and actively participate.
- We are each obligated to take immediate action to prevent events that may cause injury or illness to others or ourselves. All incidents/ accidents and/ or unsafe situations are to be reported to Management and forwarded to the Health and Safety Manager.
- Everyone is obligated to report any medical, mental or physical conditions that may affect job performance or may breach safety regulations to their immediate supervisor.
- Each of us has the right to refuse to work if such work presents an imminent danger to themselves and others present.

Responsibilities of Management and Crew Chiefs

- Are accountable for the health and safety of personnel for whom they are responsible for and are obligated to provide the necessary resources to accomplish these goals.
- Are accountable for the orientation of any and all new employees.
- Are responsible to ensure that the work assigned is done by competent workers or under their direct supervision.
- Are responsible for recommending any required health and safety program changes and ensuring program compliance.

Gradex Consulting Ltd.

Rules

Employee Warning Report

Employee's Name: _____

Date of Warning: _____

Warning Issued by: _____

Type of Violation: Safety Other

Supervisor's Report

Signature: _____

Employees Statement:

- I agree with the company/ supervisor's statement.
 I disagree with the company's statement for the following reasons.

I have entered my statement of the above matter.

Employee Signature: _____ Date: _____

- I would like to receive a copy of this statement for my records.

Please be aware that this report will be kept on file at the office, and the issue may be discussed at a Company Health and Safety Meeting in the future.

Gradex Consulting Ltd.

Personal Protective Equipment

Summary

This section addresses the Personal Protective Equipment (PPE) requirements for Gradex Consulting Ltd. employees as they apply to head, face, eyes, extremities and protective clothing. The purpose of this program is to protect employees from hazards that may cause injury or impairment in the function of any part of the body.

Gradex Consulting Ltd. will assure the adequacy, proper maintenance and sanitation of PPE that may be provided to employees for their personal use.

Crew chiefs will assess the work site through a Hazard Assessment to determine what hazards may exist. The assessment establishes the types of PPE required to protect the employee(s) from hazards present or likely to be present.

Defective or Damaged Equipment

Defective or damaged equipment will not be used and will be replaced as necessary.

Hearing Protection

Hearing protection is designed to reduce the level of sound energy reaching the inner ear.

The “rule of thumb” for hearing protection is: use hearing protection when you can’t carry on a conversation at a normal volume of voice when you are three feet apart.

Remember, this is only a rule of thumb. Any sound over 80dBA requires hearing protection. Hearing loss can be very gradual, usually happening over a number of years.

The most common types of hearing protection in the construction industry are earplugs and earmuffs. If you choose to use other types of hearing protection, ask your safety supplier or OH &S office for further information.

If hearing PPE does not fit properly or is painful to use, please management know. If the hearing protection is not properly fitted it will not supply the level of protection it was designed to deliver.

Most earplugs, if properly fitted, generally reduce noise to the point where it is comfortable (takes the sharp edge off the noise).

Gradex Consulting Ltd.

Personal Protective Equipment

Head Protection

General

Safety headwear is designed to protect the head from impact from falling objects, bumps, splashes from chemicals or harmful substances, and contact with energized objects and equipment.

In construction, the recommended type of protective headwear is the class B hardhat that has the required “dielectric strength”. There are many designs but they all must meet the CSA requirements for the Class B industrial head protection.

Most head protection is made up of two parts:

- The shell (light and rigid to deflect blows)
- The suspension (to absorb and distribute the energy of the blow)

Both parts of the headwear must be compatible and maintained according to the manufacturer’s instructions. If attachments are used with headwear, they must be designed specifically for use with the specific headwear used. Bump caps are not considered a helmet. In Alberta they can be used when the ONLY hazard is where a worker might strike his/her head against a stationary object.

Inspection and Maintenance

Proper care is required for headgear to perform efficiently. The service life is affected by many factors including temperature, chemicals, and sunlight. The usual maintenance for headgear is simply washing with mild soap and rinsing thoroughly with water.

Do

- Replace headgear that is pitted, holed, cracked or brittle
- Replace headgear that has been subjected to a blow even though damage cannot be seen
- Remove from service any headgear if its serviceability is in doubt
- Replace headgear and components according to manufacturer’s instructions
- Consult OH & S or your supplier for information on your headgear

Don’t

- Drill, remove peaks, and alter the shell or suspension in any way
- Use solvents or paints on the shell (makes shell “breakdown”)
- Put chin straps over the brims of Class B headgear
- Use any liner that contains metal or conductive material
- Carry anything in the hard hat while wearing the hard hat

Gradex Consulting Ltd.

Personal Protective Equipment

Eye and Face Protection

General

This PPE is designed to protect the worker from such hazards as:

- Flying objects and particles,
- Molten metals, and
- Splash liquids

This PPE is considered “**basic eye protection**”, which includes:

- Eyecup goggles, and
- Monoframe goggles and spectacles with or without side shields.

Hardened glass prescription lens and sport glasses are not an acceptable substitute for proper, required industrial safety eye protection.

Comfort and fit are very important in the selection of safety eyewear. Lens coatings, venting or fittings may be needed to prevent fogging or to fit with regular prescription eyeglasses.

Contact lenses should not be worn at the worksite. Contact lenses may trap or absorb particles or gases causing eye irritation or blindness. Hard contact lenses may break into the eye when hit.

Do

- Ensure your eye protections fits properly
- Clean safety glasses daily, more often if needed
- Store safety glasses in a safe, clean, dry place when not in use
- Replace pitted, scratched, bent and poorly fitted PPE (damaged face/eye protection interferes with vision and will not provide the protection it was designed to deliver)

Don't

- Modify face/eye protection
- Use eye/face protection, which does not have CSA certification

Hand Protection

Employees will wear hand protection at all times when handling materials or working in an area that would cause harm to the hands and fingers. Safety gloves are provided and can be found on the supply-shelving unit at the office.

Gradex Consulting Ltd.

Personal Protective Equipment

Skin Protection

All personnel are expected to protect skin adequately for the environmental conditions. Wearing long sleeve cotton shirts and cotton pants or denim is a combination that provides the best protection from elements such as UVA and UVB rays, wind, and to a certain degree, various temperature fluctuations. It is required that a sun protectant of SPF 45 be used on exposed skin.

Foot Protection

General

Safety footwear is designed to protect against foot hazards in the workplace. Safety footwear protects against compression, puncture injuries, and impact.

Safety footwear is divided into three grades, which are indicated, by colored tags and symbols.

The tag color tells the amount of resistance the toe will supply to different weights dropped from different heights.

The symbol indicates the strength of the sole. For example, a triangle means puncture resistant sole able to withstand 135 kg (300lbs) of pressure without being punctured by a 5cm (2 inch) nail.

In construction, it is recommended that only the green triangle grade of footwear, which also gives ankle support, be used.

Your choice of footwear should always over protect, not under protect.

Do

- Choose footwear according to job hazard and CSA standards
- Lace up boot and tie laces securely; boots don't protect if they are a tripping hazard or fall off
- Use a protective boot dressing to help the boot last longer and provide greater water resistance (wet boots conduct current)
- Choose a high cut boot to provide ankle support

Don't

- Wear defective safety footwear (i.e.: exposed steel toe caps)
- Under protect your feet or modify safety footwear

Upon 60 days of continuous employment with Gradex Consulting Ltd. you will be reimbursed the purchase price of your boots (receipt must be included).

Gradex Consulting Ltd.

Personal Protective Equipment

Policy

The following will be observed and practiced by the company and employees when the company undertakes any job.

- All employees will wear CSA approved safety glasses, CSA Grade 1 safety boots, long pants, long sleeved shirts, CSA approved hard hats, and any other specialty PPE required for the job site.
- All PPE used by Gradex Consulting Ltd. will be within the requirements of Occupational Health and Safety Legislation and CSA standards.
- All PPE used by this company will be maintained in accordance with the manufacturer's instructions and requirements.
- Company-issued PPE will be inspected at the time of issue and before each use by the employee using the PPE.
- All PPE that is of questionable reliability, damaged, or in need of service or repair will be removed from service immediately.
- No piece of PPE will be modified or changed contrary to its manufacturer's instructions or specifications or OH & S Legislation.

***The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signature: _____ **Date:** _____

Gradex Consulting Ltd.

Preventative Maintenance

Summary

This section highlights the importance of proper maintenance as a vital part of our health and safety program. Work site construction activity involves people working with tools and equipment. In addition to ensuring that workers use the tools and equipment properly, it is vital that tools and equipment be properly inspected, maintained, and kept in good repair. An effective Preventative Maintenance Program will reduce the risk of injuries, damage and lost time.

Alberta Occupational Health and Safety Legislation requires that “An employer shall ensure that all equipment used on a work site is maintained in a condition that will not compromise the health and safety of workers”

Gradex Consulting Ltd. Preventative Maintenance program applies to all employees. Involvement by all personnel is necessary to ensure a consistent message. This includes management, administration, and field personnel.

Gradex Consulting Ltd.

Preventative Maintenance

Policy

It is the policy of Gradex Consulting Ltd. to maintain all tools, vehicles and equipment in a condition that will maximize the safety of all personnel.

To accomplish this, a Preventative Maintenance Program shall be maintained and shall include the following components:

- Adherence to applicable regulations, standards and manufacturers' specifications.
- Services of appropriately qualified maintenance personnel.
- Scheduling and documentation of all maintenance work.

The Crew Chiefs and Management shall be responsible for the application of the program in his/her area of responsibility.

*** The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signed: _____ **Dated:** _____

Gradex Consulting Ltd.

Preventative Maintenance Vehicle Maintenance

Truck #: _____ Date: _____

Rating Legend: NA – Not Applicable		M – Passed but Maintenance Required	
P – Passed in good working condition		R – Rejected, repair required before use	
Cleanliness of Exterior of Vehicle		Cleanliness of Interior of Vehicle	
Vehicle in Good Working Order			
<ul style="list-style-type: none"> • Fluid Levels _____ • Front Lights _____ • Brake Lights _____ • Signal Lights _____ • Tires _____ • Brakes _____ • Sun Visors _____ • Seat Belts _____ 		<ul style="list-style-type: none"> • Windshield _____ • Windshield Wipers _____ • Emergency Brake _____ • Oil Change Required? _____ • Interior Gauges _____ 	
Fire Extinguisher			
First Aid Kit			
Safety Manual			
PPE			
<ul style="list-style-type: none"> • 2 Hard Hats _____ • 2 Safety Vests _____ • Caution Tape _____ 		<ul style="list-style-type: none"> • 2 Pairs Safety Glasses _____ • Ear Plugs _____ 	
Supplies			
<ul style="list-style-type: none"> • Pencil leads _____ • Markers _____ • Re-Enforcements _____ 		<ul style="list-style-type: none"> • Staples _____ • Highlighters _____ • Ticket Books _____ 	
Work Materials			
<ul style="list-style-type: none"> • Axe _____ • Tri-pod _____ • Flagging _____ • Tapes (2) _____ 		<ul style="list-style-type: none"> • Level _____ • Rake _____ • Shovel _____ • Chain _____ 	

Equipment Passed

Equipment Not Passed

Work Required

Completion Date/ Time

Supervisor Signature: _____

Gradex Consulting Ltd.

Preventative Maintenance

Transit Levels

Year: _____

Level 1:

Date of "2-pegging"	Completed by:

Yearly Servicing Date: _____ Signed: _____

Level 2:

Date of "2-pegging"	Completed by:

Yearly Servicing Date: _____ Signed: _____

Level 3:

Date of "2-pegging"	Completed by:

Yearly Servicing Date: _____ Signed: _____

Level 4:

Date of "2-pegging"	Completed by:

Yearly Servicing Date: _____ Signed: _____

Gradex Consulting Ltd.

Training and Safety Meetings

Safety Training Policy

Purpose

The purpose of this policy is to provide for general and specialized safety and related training throughout all levels of the organization.

Policy

The company will provide, and employees will participate in, all safety and related training that is necessary to minimize losses of human and physical resources of Gradex Consulting Ltd.

This training will include, but not be limited to:

- Safety orientations for newly hired personnel
- Refresher training before seasonal start-up
- Safety training for Management and Crew Chiefs
- Job specific training as required

In addition, safety meetings involving all employees will be held on a regular basis.

*** This safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signature: _____ **Date:** _____

Gradex Consulting Ltd.

Training and Safety Meetings

New Employee Orientation

Employee Name: _____ **Position:** _____

Hire Date: _____ **Supervisor:** _____

Topics Covered

Company Safety Policy _____
Employee's Responsibility for Safety _____

Safe Work Practices

Confined Space Entry _____
Driving _____
Hazard Control Signage _____
Manual Carrying and Lifting _____
Motor Vehicle Operation _____
Office Safety _____
Power and Hand Tool Use _____
Spray Painting _____
Portable Fire Extinguishers _____
Working on Hills and Slopes _____

Safe Job Procedures

Land Surveying _____
Pounding Stakes _____
Painting Stakes _____

Personal Protective Equipment

Hard Hats _____
Safety Boots _____
Safety Glasses _____
High-Visibility Vest _____
Other _____

General Safety Rules (Copy received) _____

Reporting Unsafe Acts/ Conditions _____

Reporting Accidents _____

First Aid _____

Emergency Numbers _____

Supervisor Signature: _____

Employee Signature: _____

Gradex Consulting Ltd.

Training and Safety Meetings

Safety Orientation Questionnaire

Name of Worker: _____ Date/time: _____

1. Hazard identification and control is important to maintain a safe working environment.
 Yes No
2. Working safely is a condition of employment. Yes No
3. All injuries, regardless of how minor, must be reported immediately to your supervisor.
 Yes No
4. It is important to maintain good housekeeping in your work areas. Yes No
5. You observe an unsafe condition on site, you should:
 Wait for the weekly safety meeting and report it.
 Report it immediately to your supervisor
 Let someone else worry about it.
6. Personal Protective Equipment should be worn whenever:
 Someone else is wearing it.
 Your Crew Chief advises you wear it.
 The potential for personal injury exists.
7. Tools that are not in proper working manner are okay to use "just this once".
 Yes No
8. The Workplace Hazardous Material Information System (WHMIS) designates certain products as controlled products and require them to be labeled. This label is a warning for you the worker. The label tells you:
 Name of the product.
 Hazard Symbol.
 Risks when you use it.
 Personal Protective Equipment to wear.
 First Aid treatment if necessary.
 All of the above.

Signature of Worker: _____

Gradex Consulting Ltd.

Training and Safety Meetings

Safety/ Toolbox Meeting

Date/ Time: _____

Attendance:

Lisa Barteski _____

Linda Nameth _____

Brad Beaton _____

Chris Nugent _____

Leah Billey _____

Jeff Pauls _____

Greg Burwash _____

Kim Pauls _____

Terris Dods _____

Shawn Pauls _____

Leslie Kelly _____

Sandra Poohkay _____

Christian Mandin _____

Rich Taylor _____

Discussed:

Employee Input:

Actions to be Taken :

Date to be Achieved:

Next Meeting: _____

Topic Ideas: _____

Signature of Management: _____

Gradex Consulting Ltd.

Inspections

Summary

The Gradex Consulting Ltd. Inspection Program provides the supervisor with a strong tool for use in his/ her safety and loss prevention efforts. By participating in these inspections, the supervisor improves his/ her ability to recognize potential hazards and to help determine methods for their elimination or control. The inspections are conducted to accomplish the following:

1. To identify and record unsafe conditions, practices and potential hazards with buildings, vehicles, equipment and the environment.
2. To identify specific areas and locations in which they exist.
3. To establish procedures and responsibility for the correction and abatement of these conditions.
4. To ensure that existing hazard controls (WHMIS/ ERP) are functioning adequately.

Inspection Guidelines

The following guidelines should be used in implementing an Inspection Program:

1. At all sites there should be a self-inspection procedure.
2. The responsibility of performing this function is assigned to the Crew Chief/ Management.

Areas to be Inspected

No facility or workplace can be totally free from hazards. All areas of Company property are to be inspected yearly including:

- Office areas
- Parking lot and driveway
- Washrooms
- Vehicles
- Equipment

The information obtained from a regular inspection should be reviewed carefully to identify where immediate corrective action is needed to identify trends as part of overall monitoring of the program effectiveness. Analysis of inspection reports over a period of time may:

- Highlight the need for training in certain areas
- Provide insight as to why accidents are occurring in particular areas
- Assist in establishing or improving safe work practices
- Establish priorities for corrective action

Gradex Consulting Ltd.

Inspections

Safe Work Practices/ Procedures: Office

1. Employees dressed appropriate for the job.
2. Smoking rules obeyed.
3. Use of proper handling techniques (lifting and moving).
4. No evidence of horseplay, improper climbing, jumping, running or other unsafe acts.
5. Employee workplaces clean and orderly (free of spills and trash).
6. Equipment properly used.
7. Equipment properly maintained.
8. Emergency evacuation procedures posted.
9. Emergency phone numbers posted by all telephones.
10. Floors clean and free of defects or spills.
11. Trash containers sufficient in number and not overflowing.
12. Cleaning supplies readily available.
13. All doors function and lock properly.
14. Exits properly marked.
15. Fire response instruction posted.
16. Fire extinguishers in good condition.
17. Bathroom areas clean and properly equipped.
18. First Aid equipment available and maintained. Certified First Aid person on duty.
19. Personal protective equipment adequately stored, neat, accessible and used.

Gradex Consulting Ltd.

Inspections

Inspection Policy

Purpose

The purpose of this policy is to control losses of human and material resources by identifying and correcting unsafe acts and conditions.

Policy

Gradex Consulting Ltd. will maintain a comprehensive program of safety inspections at all facilities and job sites.

Responsibilities

The Manager is responsible for the overall operation of the program.

Crew Chiefs are responsible for directing formal inspections on job sites and for involving workers in such inspections. As well as conducting ongoing informal inspections of all sites.

Workers are responsible for participating in and contributing to the Inspection Program.

***The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signature: _____ **Date:** _____

Gradex Consulting Ltd.

Inspections

Work Site Safety Inspection Report

<input type="checkbox"/> Weekly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Quarterly
Address: _____		Date/ Time: _____
Person Inspecting: _____		# of People: _____

Priority Index: 1.Imminent Danger 2.Serious 3.Minor 4.Acceptable 5.Not Applicable

Priority	Inspected Items	Priority	Inspected Items	Priority	Inspected Items
	Hazard Assessment Procedure		Fire Extinguishers		Code of Practice/ Procedures
	Smoking in Restricted areas		Protection of Public		First Aid Kit
	Safety Promotion/ Education		Vehicle/ Equip Operator Cert.		Occ. Health and Safety Acts/ Regs.
	Waste Disposal/ Housekeeping		WHMIS		

Corrective Actions

Priority #	Description	Corrective Action	
		By Whom	Date/ Time

Signature of Employee In Charge _____ Date: _____

Comments:

Gradex Consulting Ltd.

Accident/ Incident Investigations

Definitions

Accident: An undesired event that results in harm to people, damage to property, or loss to process

Incident: An incident is any unplanned and unwanted event, which results in damage or injury or which could have resulted in damage or injury (i.e., close call, near miss)

Near Miss: Incidents with no visible injury or damage

Summary

The purpose of this element is to clarify how to identify through apparent and underlying contributing factors and causes which produced a vehicle accident, employee injury or illness, property damage or general liability claim; to analyze the information obtained through investigation to determine the appropriate corrective actions in order to prevent recurrence; and to control associated loss controls. Also reviewed will be reporting and recording for various types of accidents/ incidents.

No amount of investigating and analysis can reverse an accident, however a proper and thorough investigation can provide critical information that can be used to turn past mistakes into improved performance.

In order to properly evaluate Gradex Consulting Ltd.'s safety performance, it is imperative not to only investigate all losses but also to properly analyze, report, and record this information. All subsequent actions are entirely dependant on the quality of the investigation.

A complete analysis of the information obtained during the accident investigation enables the company to identify the contributing factors and proximate cause(s). Once this is determined, corrective actions can be taken to prevent recurrence. Members of the management team may conduct the analysis. All responsible parties must follow through recommended corrective action or counter measures, once determined. When someone is seriously injured or the damage is very severe, the management team will meet within 48 hours to determine preventability. This allows local management to take immediate action and address critical issues, as well as demonstrate a sense of urgency.

Accident analysis must be objective and based on factual information only. Quality investigations and objective analysis will normally clarify the question of preventability.

Reporting requirements vary depending on the type of incident. Additional reports may be required depending on severity and provincial requirements.

- **Vehicle Accidents**

These reports include the Gradex Consulting Ltd. Accident/ Incident/ Loss Witness Statement form and Incident Investigation Report. The nature and severity of certain accidents may require immediate telephone reports to these departments and/ or a claims adjuster.

Gradex Consulting Ltd.

Accident/ Incident Investigations

- **Employee Injuries**

These reports include Provincial Workers' Compensation Report, Accident/ Investigation/ Near Miss Investigation Report, Supervisors Report of Injury or Illness and the Accident/ Incident/ Loss Statement Witness Statement. The nature and severity of certain accidents may require immediate telephone reports to these departments, Workers' Compensation Board and provincial Occupational Health and Safety and/ or a claims adjuster.

Gradex Consulting Ltd. must comply with the provincial requirements following the death of any employee from a work-related incident or the hospitalization of 3 or more days as a result of a workplace incident. Fatalities and severe injuries must be reported immediately to Occupational Health and Safety and the work site must be shut down and not disturbed, pending their investigation. Other reportable incidents must be submitted within 72 hours of the incident occurrence.

- **Property Damage**

Reports must be generated for damage to property whether caused by vehicle movement, loading, unloading and other company equipment or employee actions. Nature and extent of damage will determine if reports are to be made to the Safety Manager or if an adjuster will be engaged.

Gradex Consulting Ltd.

Accident/ Incident Investigations Policy

Purpose

To investigate accidents/incidents so that causes can be determined and corrective actions can be implemented to prevent recurrence.

Policy

At Gradex Consulting Ltd., the following types of incidents shall be fully investigated:

1. Accidents that result in injuries requiring medical aid.
2. Accidents that cause property damage or interrupt operations with potential loss.
3. Incidents that have the potential to result in (1) or (2) above, such as close calls or near misses.

All incidents that fall under Section 18 of the Occupational Health and Safety Act must be reported to Occupational Health and Safety and to WCB as defined by the Occupational Health and Safety Act.

Responsibilities

1. All employees shall report all incidents as soon as possible to their immediate supervisor and assist in the investigation when requested.
2. Supervisors shall conduct initial investigations and submit their report(s) to their Manager immediately.
3. Managers shall determine the need for, and if necessary shall direct, detailed investigations. They shall also determine causes, recommend corrective action, and report appropriately. As well, shall review all reports, determine the corrective actions to be taken, and ensure that such action is implemented.

***The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signature: _____ Date: _____

Gradex Consulting Ltd.

Accident/ Incident Investigations

Investigation Report Date: _____ Time: _____

Who was involved?
What happened?
When? Date: _____ Time: _____
Where?
Reported to OH & S Branch Yes <input type="checkbox"/> No <input type="checkbox"/>
What was the immediate cause ?
What were the underlying causes ?
What training, instruction, orientations, and cautions were given before the incident?
How can similar incidents be prevented in the future?
Recommendation(s) for further action:
Recommendations Completed by Whom:
Date/ Time:
Person in Charge:
Reviewed By Snr. Management: Date/ Time:
Comments/ Recommendations:

Gradex Consulting Ltd.

Accident/ Incident Investigations

Incident Investigation Report		Date/ Time: _____	
1. Incident Type: <input type="checkbox"/> Injury/ Illness <input type="checkbox"/> Property Damage <input type="checkbox"/> Major Potential <input type="checkbox"/> Fire <input type="checkbox"/> Spill <input type="checkbox"/> Other <input type="checkbox"/> Vehicle Collision			
2. Incident Date (M/D/Y) ____/____/____		3. Time (24 hour clock)	
4. Area:		5. Specific Location:	
Injury/ Illness			
6. <input type="checkbox"/> First Aid <input type="checkbox"/> Medical Aid <input type="checkbox"/> Modified Work <input type="checkbox"/> Lost Time <input type="checkbox"/> Fatal			
7. Name of Employee:		8. Age: Sex:	
9. Occupation		9.5. Experience	
10. Nature of Injury:			
11. Object/ Equipment/ Substance Inflicting Injury/ Damage:			
Property Damage			
12. Description of Property:			
13. Description of Damage:			
14. Estimated Loss/ Damage Cost			
Other Actual/ Potential Loss			
15. Type			
16. Description:			
17. Estimated Cost			
18. Evaluation of Risk Potential if not Corrected:			
A. Loss Severity Potential <input type="checkbox"/> Major <input type="checkbox"/> Serious <input type="checkbox"/> Minor			
B. Probable Recurrence Rate <input type="checkbox"/> Frequent <input type="checkbox"/> Occasional <input type="checkbox"/> Rare			
19. Description of Incident:			

Gradex Consulting Ltd.

Accident/ Incident Investigations

Diagram of Scene:	
21. Witness(es)	
Witness(es) Statement(s) Attached <input type="checkbox"/> Yes <input type="checkbox"/> No	
22. Immediate Cause(s)	
Description:	
23. Underlying Cause(s):	
Description:	
24. Corrective Action(s) (Immediate, Interim, Final):	
Recommendations Completed by Whom:	Date/ Time:
25. Date Report Completed (Y/M/D) _____ / _____ / _____	
Signatures	
Supervisor:	Employee:

Gradex Consulting Ltd.

Emergency Preparedness

Summary

Emergency and Fire Prevention plans minimize personal injury, property damage and business interruption during unplanned emergencies. The goal of Gradex Consulting Ltd. is to develop a state of readiness and use of specific procedures to reduce the effects of the emergency.

In the very least, it is the expectation of Occupational Health and Safety that all employers have the capability of:

- Providing first aid to the injured
- Providing transportation to a medical facility
- Conducting initial fire fighting
- Promptly contacting outside agencies for assistance.

This plan establishes minimal compliance for all emergency situations, such as fire, gas, spills, power failures, bomb threats or natural disasters (storms, tornadoes, severe weather).

Work Site Safety Plan

Emergency Services on most sites may be limited to administering minor first aid and containing incipient fires until professional assistance can be rendered.

First Aid and CPR trained employees only should be involved in the treatment of injured personnel. On each "Emergency Response Assistance List" near the bottom is a list of the staff that is both First Aid and CPR trained.

As well, all employees are to be trained to extinguish incipient fires and are responsible for taking immediate action in such situations to prevent minor incidents from escalating. Any fire with greater potential should result in immediate evacuation.

Other reasons for evacuation would be fire, gas release or bomb threats. In case of an evacuation at the Gradex Consulting Ltd. office, the muster point is the middle concrete barrier wall, at the far west end. On site, the muster point will be the company vehicle unless otherwise decided by Crew Chief and communicate to other employees. **Management will decide return to duty.**

All employees of Gradex Consulting Ltd. are to notify their immediate supervisor about an emergency situation or its potential. The immediate supervisor is to notify the proper emergency response department.

Gradex Consulting Ltd.

Emergency Preparedness

Policy

On each job site the Crew Chief will gather information such as the current location, nearest hospital, and fire station so as to help minimize travel time to treatment for all employees.

This information is to prevent confusion during an emergency situation, for all employees will be aware of various procedures to follow on each job site should an accident occur.

All employees are to be aware of the action required, but should follow instructions set by Management or Crew Chiefs.

Fire Prevention

Fire Protection and Prevention shall embrace all measures relating to safeguarding human life, preserving property and continuous operations at Gradex Consulting Ltd. The best time to stop a fire is before it starts.

Our Fire Loss Control Program Policy intends to ensure that all employees shall, at all times, know the location of fire extinguishers and be properly trained in how to operate them in order to respond to fires in the correct manner.

Our effective Fire Loss Control Program includes the following objectives:

1. To prevent loss of life and personal injury
2. To protect property
3. To provide uninterrupted operations
4. To prevent the opportunity for fire

*** The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signature: _____ **Date:** _____

Gradex Consulting Ltd.

Emergency Preparedness

Emergency Evacuation Procedures

Leaking Gases/ Liquids

1. Stop – Turn off all equipment
2. Call 9-1-1 or (780) 420-5585 for ATCO
3. Know the location of all extinguishers and how to use them
4. Protect yourself, then others. Try to contain the blaze with a fire extinguisher or shut off leaking gases or fluids.
5. Evacuate the site if the fire cannot be put out, or gases/ liquids cannot be contained.
6. Know where all exits are (office only) and be sure they are not locked or blocked off.
7. Do a roll call
8. If you MUST rescue victims:
 - Keep upwind of the event of hazardous goods, spills, leaks or fire.
 - Administer First Aid to maintain life.
 - Keep unnecessary people away.

NOTE: Keep out of low areas.

Do not feel compelled to control the hazard.

Use your powers of hearing and observation to detect:

- Hazards
- Warning placards
- Downed wires
- hissing sounds of gases
- leaking fluids
- flames, smoke, steam, etc

Gradex Consulting Ltd.

Emergency Preparedness

Explosion

Explosions include those caused by leaking gas, faulty heating equipment, flammable vapours.

1. Fall to the floor/ ground and take immediate shelter under tables, desks, or such objects that will offer protection against flying glass or debris. Protect your face and head with your arms.
2. After the effects of an explosion have subsided, check exits or exit stairways prior to evacuating the building or site, if notified to do so by Management or a Crew Chief.
3. Call 9-1-1 or nearest fire department.
4. Do not return to the building or site until Management or Fire Emergency Officer gives the “all clear” signal.

Spills

When encountering a spill of any nature, it is the responsibility of the **EMPLOYEE** to:

1. Warn others in the immediate vicinity that a spill has taken place;
2. Designate a fellow employee to guard the area
3. Inform the supervisor

It is the responsibility of the **SUPERVISOR** to:

1. Re-assign employees to other areas or evacuate if necessary using the following guidelines:
 - Unless immediate evacuation is essential, the supervisor/ crew chief to decide whether or not to evacuate the site.
 - Move crosswind or upwind – never downwind – to avoid toxic gases and vapours.
 - Render first aid if necessary.
2. Cordon off area immediately
3. Attempt to identify the spilled substance (placards, labels)
4. Phone authorities listed on “Emergency Response Assistance List” for clean up and disposal procedures.
5. Keep all employees informed of procedures taken.
6. Provide a written report to Management.

Gradex Consulting Ltd.

Emergency Preparedness

Emergency Response Assistance List

Department	Telephone Number	Location
Fire (Emergency)	911	Edmonton and Area
Police (Emergency)	911	Edmonton and Area
Ambulance (Emergency)	911	Edmonton and Area
ATCO	(780) 420-5585	Edmonton and Area
Buried Utility Locations	1-800-242-3447	Alberta
Disaster Services	1-800-272-9600	Alberta
Disaster Services	(780) 422-9600	Edmonton and Area
Gas	(780) 420-5585	Edmonton and Area
Industrial Accidents (Fatality or Serious Injury)	(780) 415-8690	Edmonton and Area
Poison Center	1-800-332-1414	Alberta
Police (General)	(780) 423-4567	Edmonton
Power (Electrical)	(780) 412-4500	Edmonton
Power (Electrical)	310-9473	Outside Edmonton
Sewer	(780) 496-1717	Edmonton
Water	(780) 412-6800	Edmonton
Waterworks	(780) 412-6800	Edmonton
Devon – same as above except RCMP – (780) 987-3413		
Fort Saskatchewan – same as above except RCMP (780) 992-6100		
Leduc		
Fire (Emergency)	911	Leduc
Police (Emergency)	911	Leduc
Ambulance (Emergency)	911	Leduc
Police	(780) 980-7267	Leduc
Fire	(780) 980-3473	Leduc
Water and Sewer	(780) 980-7108	Leduc
Stony Plain – same as above except RCMP (780) 963-2217		
County of Strathcona/ Sherwood Park – same as above		
Staff First Aiders (CPR inclusive)		
Jeff	(780) 449-7000 or 220-6373	
Mike	(780) 220-6371	
Kim/Lisa	(780) 905-3222	
Christian	(780) 220-6372	
Michelle	(780) 449-7000 or 220-6370	

Gradex Consulting Ltd.

Records and Statistics

Summary

According to Occupational Health and Safety Legislation, Records and Statistics are to be kept in order to assess the Health and Safety Program, to make necessary modifications and/or to plan for future activities.

The following reports are to be kept on file:

- Employee Safety Training
- Safety Orientation Forms
- Minutes of Safety Meetings (filed by date, found in “Safety Meeting Minutes” binder)
- Hazard Assessments (filed on back of individual worksheets for individual work sites)
- Inspection Reports (filed with worksheets, done in case of very to extreme hazardous conditions)
- Accident/ Incident Investigation Reports (filed by date)
- Medical Treatment Reports (filed by date, in individual employee files)

All forms or reports are to be neat and readable, completely filled out and signed/ dated by the appropriate person(s).

Due to the size of Gradex Consulting Ltd., it has been determined that monthly summaries will be compiled. At year-end, a consolidation will be compiled.

Gradex Consulting Ltd.

Records and Statistics

Monthly Safety Summary

1. Number of Employees Hired _____
Number Completed Orientation _____

2. Number of Tool Box Meetings Scheduled _____
Number Conducted _____
Percentage Attendance _____

3. Number Formal Inspections Scheduled _____
Number Completed _____
Total Unsafe Acts/ Conditions Identified _____
Number Corrected _____
Number Outstanding _____

4. Number of Incidents _____
 Damage Only: _____
 Injury Only: _____
 Injury and Damage: _____
 Near Miss: _____

- Number of Investigations _____
 Outstanding: _____
 Completed _____

- Number of Recommendations Made _____
 Complete: _____
 Outstanding: _____

Comments:

Manager's Signature: _____ Date: _____

Gradex Consulting Ltd.

Records and Statistics

Employee Training Record

	Course# & Date/ Time Completed									
	1	2	3	4	5	6	7	8	9	10
1. Employee Name: Date of Hire: Title:										
2. Employee Name: Date of Hire: Title:										
3. Employee Name: Date of Hire: Title:										
4. Employee Name: Date of Hire: Title:										
5. Employee Name: Date of Hire: Title:										
6. Employee Name: Date of Hire: Title:										
Course #	Expiry Date		Comments:							
PHSM	Ongoing									
Auditor	3 Years									
First Aid/ CPR	3 Years									
LSE	Ongoing									
Orientation	Ongoing									
WHMIS	3 Years									

Gradex Consulting Ltd.

Records and Statistics

Monthly Injury Summary

Month: _____

Job Site Address	Man Hours Worked		Lost Time		Medical Aid		First Aid		Frequency	
	Month	Year to Date	Month	Year to Date	Month	Year to Date	Month	Year to Date	Month	Year to Date
Refer to WCB for your industry average Accident Frequency is calculated as: Number of Recordable injuries * 200,000 divided by number of employees hours to exposure. Accident Severity is calculated as: Number of workdays lost * 200,000 divided by the number of employee hours of exposure.					Severity Average					
					Frequency Average					
					Manager's Signature: _____ Date: _____					

Gradex Consulting Ltd.

Records and Statistics

Year End Injury Summary

Year: _____

Month	Personal Injury Cases		Days Lost	Frequency	Severity
	Lost Time Cases	Medical Referral			
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Total					
Manager's Signature: _____ Date: _____			Average:		

Gradex Consulting Ltd.

Waste Management/ Environment

Company Environmental Policy

Gradex Consulting Ltd. considers environmental protection to be an important and integral part of conducting business.

Our company's Environmental Policy is to:

- minimize hazards to public health
- protect the environment from the adverse effects of our operations
- comply with all legislated standards and regulations
- assess potential environmental risks

*** The safety information in this policy does not take precedence over applicable government legislation, with which all employees should be familiar.**

Signature: _____ **Date:** _____

Gradex Consulting Ltd.

Miscellaneous

Summary

This area is where additional pertinent information may be added as required. Suggestions made at Safety meetings will be researched and added to this section.

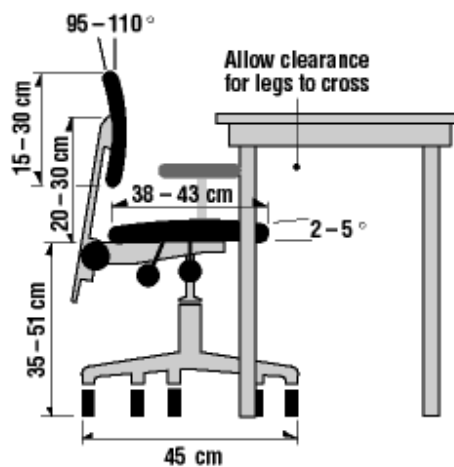
Gradex Consulting Ltd.

Miscellaneous

Back Injury Prevention (Office)

Ergonomics and Chairs

Ergonomic chairs are designed to suit a range of people; however, there is no guarantee that they will suit any one person in particular. For example, a chair could be too high and the arm rests too far apart for a short, slim person. In addition, chairs may not suit every task or arrangement at the workstation. A chair becomes ergonomic only when it specifically suits a worker's size (body dimensions), his or her particular workstation, and the tasks that must be performed there. It is possible to find the right chair although it is not always easy.



Ergonomic Chair

Why is finding the right chair so important?

Today, in industrialized countries, many people sit for most of the time that they are awake. They sit while having breakfast, while going to work in cars or buses, in school classrooms, in meetings, in offices, during dinner, and at home while watching television. Many people also sit at work operating machines which new technology has developed to replace manual work. Although sitting requires less physical effort than standing or walking it puts a lot of stress on lumbar area. Combined effects of a sedentary lifestyle and a job that requires sitting can lead to many health problems.

What do I need to know about selecting a good "ergonomic" chair?

The selection of a suitable chair is a critical step in preventing health problems in people who work in a sitting position. With the ergonomics approach, sitting is viewed as a specific, specialized activity that is influenced by the way that a sitting person interacts with the working environment.

Several basic concepts should be considered:

- One chair does not fit everyone. The users' body dimensions must be used when selecting a chair so that it does not strain one part of the body while fitting another.

Gradex Consulting Ltd.

Miscellaneous

- Collect data about the user's body height. The optimal seat height is about one quarter of the body height. This is only a rule of thumb since the torso-to-leg ratio can vary widely.
- No one chair is suitable for every activity. For example, dentists require a different chair than do industrial workers or computer operators

What are the features of a "good" chair?

Some features are mandatory for a good chair regardless of how you intend to use it:

- **Adjustability** - Check to see that seat height is adjustable.
- **Seat height range** - Check whether the seat height can be adjusted to the height recommended for the worker(s) who will use it. Other chairs may have to be selected for very short or tall workers.
- **Backrest** - Check to see that the backrest is adjustable both vertically and in the frontward and backward direction.
- **Seat depth** - Select the seats that suit the tallest and the shortest users.
- **Stability** - Check for the stability of the chair; a five-point base is recommended.

Other features to consider

- See if the selected chair has features that will help someone do their job better. Armrests with adjustable heights are good for computer operators. Wider or narrower armrests may also be required depending on the worker's dimensions and tasks they do.
- See if the selected chair has features that will make doing a job more difficult. An example may be that someone may be using a chair with casters or wheels when a stable and stationary work position would be better. If chairs with casters are needed, choose ones that match the type of flooring you have (carpeting or hard floors).

Can a chair solve all of the ergonomic problems of working in a sitting position?

A well-designed chair allows the user to sit in a balanced position. Buying an ergonomic chair is a good beginning but it may not bring the benefits expected. The actual sitting position depends on an individual's personal habits; he or she has to learn and practice how to sit properly.

Also, remember that the chair is only one of the components to be considered in workstation design. All the elements such as the chair, footrest (if needed), work surface, document holders, task lighting and so on need to have flexibility and adjustability to be "designed in."