



Data Cell Systems, Inc.

Safety and Health Manual

Corporate Office
Data Cell Systems, Inc.
250 HWY 3201
Winnsboro, LA 71295
318-435-5800 office
318-435-9113 fax
www.Data-Cell.com

Data Cell Systems, Inc.

Safety and Health Manual Table of Contents

	Page
Safety and Health Program Overview	3
Essential Policies for Tower Technicians and Crews	4
Accident Incident Response	5
Accident Incident Report Form	6
Code of Safe Practices	7
Injury and Illness Prevention Program	9
Manager Responsibilities	16
Employee Responsibilities	18
Special Handling of Hazardous Materials	32
Emergency Action Plans	41
Fall Protection Program	47
Employee Safety and Health Manual Acknowledgment Form	51

SAFETY AND HEALTH PROGRAM OVERVIEW

The Safety Program at Data Cell Systems, Inc. is a program that is fully integrated into everything we do from hiring new employees to performing work on towers.

Data Cell Systems, Inc. has spent considerable time developing an Illness and Injury Prevention Protection Program.

Data Cell Systems, Inc. has a visible and strong drug and alcohol abuse awareness and prevention program.

Data Cell Systems, Inc. requires new employees to submit to a post-offer drug screen as well as a physical to determine fitness to participate in the type of strenuous work that we perform.

Data Cell Systems, Inc. maintains Workers Compensation Insurance Policies in each state where we do business.

Data Cell Systems, Inc. has a vigorous safety awareness training program which includes:

- a. Annual in-house safety training for all employees on First Aid.
- b. Required crew safety tailgate training by each crew on a weekly basis.
- c. Safety orientation training for new employees.
- d. OSHA Safety Requirements training to each Foreman as part of the Foreman Orientation. Included are the use of OSHA Form 101 and 200, OSHA site inspections and other OSHA Requirements.
- e. Fall Protection Training is provided to each employee when they are issued full body harness.

Data Cell Systems, Inc. requires all employees to wear safety equipment when on the job sites. This includes hard hats, safety shoes, and eye and/or noise protection when necessary. Respirators are required when working with hazardous materials.

Data Cell Systems, Inc. is investing in new state of the art fall protection equipment for each new employee. This equipment is ANSI certified to meet the most stringent OSHA requirements as published in their proposed regulations.

Employees are required to perform and document site hazard evaluations on a daily basis. Approval to implement work stoppages are delegated to the lower tier

employees when weather conditions or the site hazards create unsafe working conditions.

Data Cell Systems, Inc. maintains a strong vehicle maintenance program. We require a check of individual's drivers licenses records prior to authorizing employees to drive Company Vehicles and we recheck these records on a quarterly basis. Employees who have experienced a DWI or DUI within the immediate past are denied Company driving privileges and cannot collect travel pay until approved by our insurance company. Employees whose driving records show suspensions, excessive speeding violations, or grossly negligent driving behavior are also denied Company driving privileges.

ESSENTIAL POLOCIES FOR TOWER TECHNICIANS AND CREWS

The following are enforced company policies that must be followed at all times. Any employee in violation of these policies will be subject to disciplinary action.

1. All persons riding in company vehicles must wear installed seat belt restraints.
2. Employees must wear ANSI approved hard hats at all times on job sites regardless of the type of work being performed.
3. Employees climbing a structure must wear company-prescribed positioning and fall arrest equipment. They must be tied to the structure 100% of the time. No climbing will be done without an observer.
4. Employees will not ascend or descend heights via mechanically driven cable (i.e., ride the ball).
5. Employees will not operate motor vehicles, equipment or work on a site with any alcohol or non-doctor prescribed drugs in their blood (0.00%). If employees are taking prescription medication, they will notify their supervisor who will determine their fitness for work.
6. Horseplay and any other unsafe acts will not be tolerated. Employees are expected to report such to their supervisor immediately. Accidents, regardless how minor, must be reported immediately.
7. We will not work in dangerous conditions, such as cold, heat, ice, high wind, or other inclement weather. Foremen are responsible to determine whether conditions are safe or not and direct actions accordingly.

8. No person will be allowed onto a Data Cell Systems, Inc. controlled site without proper safety equipment (minimum of hard hat) and will be kept a safe distance from hazards. Signs and warning tape will be posted when inadvertent access can't be prevented.
9. Employees are not allowed to work on a site until they have received initial safety training and have passed the safety test and possess the required safety equipment. Employees will not be allowed to climb a tower until they have been properly trained and certified by their foreman to do so. Any employee observing an unsafe condition or act must report it to the foreman immediately.
10. Employees are expected to represent our Company in the correct manner. This includes appearance, conduct and language. Employees are expected to act in a professional manner by reporting to work on time, ready to work.

This list is not all inclusive but contains the policies necessary to keep our workplace safe. Violations of these policies can result in termination of employment.

ACCIDENT/INCIDENT RESPONSE

This is a checklist of actions to complete in case of an accident or incident that occurs on a worksite or in a Company vehicle.

1. Call 911. Survey the situation. Provide First Aid.
2. Obtain assistance from local fire, rescue and medical services as needed.
3. Notify Foreman and Project Manager of the initial details of the incident.
4. Call the office with details of the incident.
5. Arrange for drug screens (s).
6. Investigate and record the cause of the accident/incident.
7. Prepare First Report of Accident/Personal Injury and fax to office.

FIRST REPORT OF ACCIDENT
PERSONAL INJURY

Name	Male/Female	Date of Birth	Occupation
Social Security#		Phone#	
Street Address		State	Zip Code
Mailing address if different from above		State	Zip Code
Location where accident occurred			
City:	County:	State:	Employers
			Premise- Yes/No
Date of Injury:	Time of Injury	Was office notified	Was injury paid in full?
		Yes/No	If so, by whom?
Name of Supervisor		How long have you been employed by DCS, Inc.?	
Describe in detail how accident occurred and what employee was doing when injured- if extra room is needed continue on back.			
Identify object/substance which directly injured the employee(i.e. machine, vapor, poison radiation, etc.)			
Was safety device or Regulation provided?		Was accident caused by injured's Failure to use safety device?	
Yes	No	Yes	No
Was safety device or Regulation used at time?			
Yes	No		
If injury was caused by failure to use safety equipment/practices, explain below:			
Name, Address and Phone Number of Witness(es).			
Injured's Signature		Date	Supervisors Signature

SPECIFIC WORK PRACTICES AND PROCEDURES

CODE OF SAFE PRACTICES

The following is a brief review of major safety responsibilities which are required of all Data Cell Systems, Inc., employees.

- 1) Attend all required safety training and/or safety meetings.
- 2) Report any and all unsafe or unhealthy work conditions.
- 3) Cooperate in all accident investigations.
- 4) Report all accidents and/or injuries as soon as they occur.
- 5) Read and be familiar with all specific work procedures, Code of Safe Practices, Injury and Illness Prevention Program and/or any other company safety policies and procedures.
- 6) Wear all protective equipment assigned for each individual job.
- 7) Avoid participation in any “horseplay” activity that may distract other employees.
- 8) Constantly be aware of fall hazards and always use all protective equipment and procedures to protect against the potential for falls.
- 9) Keep the worksite in a clean and safe condition free from trash and refuse that could result in accidents.
- 10) Smoke only in designated areas.
- 11) Observe strict procedures when trenching and/or excavating in excess of five feet in depth.
- 12) Always be observant of power lines and protect against accidental contact.
- 13) Check all electrical equipment and extension cords prior to each use for damage.
- 14) Never work on electrical equipment unless you have been approved by the Safety Coordinator to conduct such work.

- 15) Never operate any equipment if you are not approved or licensed to do so.
- 16) Always wear seat belts when riding in work vehicles.
- 17) Inspect each vehicle prior to use.
- 18) Never ride on heavy equipment or on the outside of any vehicle.
- 19) Alcohol, drugs, etc. are strictly forbidden on company worksites of company property including vehicles.
- 20) Immediately report all accidents.
- 21) Always be aware of the location and most direct route to medical facilities from each worksite. Also, know where emergency telephone numbers are posted.
- 22) Discontinue work should weather conditions present unnecessary hazards.

All of the above items are conditions of your employment. The company "Injury and Illness Prevention Program clearly states that violations of safety procedures can result in disciplinary action up to and including termination.

If you are not sure of a procedure or feel uncomfortable with any work practice or procedure, contact your foreman, the Safety Coordinator, and/or the office.

INJURY AND ILLNESS PREVENTION PROGRAM

The program includes the following:

- 1) Identify responsible persons
- 2) System for ensuring that employees comply with safe and healthy work practices.
- 3) System for communication with employees
- 4) Procedures for identifying and evaluating work place hazards
- 5) Procedures to investigate occupational injury or occupational illness
- 6) Methods and/or procedures for correcting unsafe or unhealthy conditions
- 7) Training Programs
- 8) Record Keeping

AUTHORITY AND RESPONSIBILITY

- 1) Management is responsible for ensuring that an effective Injury and Illness Prevention Program is developed and implemented. Management will take whatever actions, as is within his authority, to procure actions and to allocate resources to implement and maintain this program.
- 2) Management will be responsible for conducting the following duties on a daily basis
 - a) Coordinate the Injury and Illness Prevention Program.
This includes conducting accident investigations, tracking hazard abatement, providing and/or coordinating training, and insure all employees follow mandated safety and health procedures.

Develop and oversee the implementation of company health and safety policies.
- 3) The Company Safety Coordinator shall immediately be responsible for completion of the following duties:
 - Maintain all records required by the injury and illness prevention program and workers' compensation. This includes posting the OSHA 200 log and any other required health and safety posting in a conspicuous location.
 - Provide any required protective equipment for employee use.
 - Complete all the occupational injury and illness forms and forward to Management or the appropriate location in a timely manner.

EMPLOYEE COMPLIANCE

We take all possible measures to ensure that employees comply with all safe and healthful work practices.

The following methods will be used to encourage compliance:

Training and retraining programs will be conducted as indicated in the Training Portion of this policy.

Recognition for employees who follow safe and healthful work practice will be organized as follows:

The following formalized progressive disciplinary procedure will be implemented for employees who continue to disregard safety and health policies and procedures:

First Offense: Verbal Reprimand

Second Offense: Suspension for completion of job

Third Offense: Termination

EMPLOYEE/EMPLOYER COMMUNICATION

Communication between the employer and employee is an essential element of an occupational safety and health program. We use the following methods to communicate safety and health matters to our employees.

1) Safety Meetings

All foremen will hold weekly tailgate meetings with employees. Foremen will conduct a detailed monthly safety meeting. These meetings may be incorporated into a regularly scheduled staff meeting. Safety meetings will be documented on the training record keeping forms/logs. Foremen are responsible for maintaining these records.

2) Bulletin Boards

The following items must be posted in the work area:

- * Employee Polygraph Protection Notification
- * Federal Minimum Wage Notice
- * Fair Employment Practices
- * Payday Notification
- * Unemployment Insurance/Disability Notification
- * Federal OSHA Notification Regarding Job Safety

- * OSHA Form 200
- * Any OSHA Citations

3) Procedure For Employees To Report Unsafe and Unhealthy Work Conditions.

An employee should report any unsafe/unhealthy work condition to Foremen, who will investigate the report and initiate hazard abatement if needed.

Any report may be submitted anonymously. Under no circumstances may the employee be discharged or discriminated against for reporting a hazard.

HAZARD IDENTIFICATION

Inspections of work-site within the company will be conducted to identify and evaluate any potential health and safety hazards. The following types of inspections will be conducted:

Baseline Hazard Assessment Survey

This survey will consist of a walk-through survey to identify safety hazards, evaluation of work operations to identify safety hazards, evaluation of work operation to identify health hazards, and evaluate existing occupational safety and health programs. The survey results will be provided in writing and will include recommendations to correct any deficiencies found during the survey. These recommendations will be priorities for abatement according to the hazard severity and mishap probability. This risk assessment code will also be included in the report.

Periodic Inspections

The Foreman or his qualified designee will conduct periodic safety inspections on a monthly basis and whenever an employee reports a previously unrecognized hazard or whenever a new hazard is introduced into the work area. This inspection must be documented and the records maintained.

The inspection record shall include the following information:

- inspection date
- name of employee conducting the inspection
- employee's signature
- department and facility
- location of facility ;and/or work site
- description of any hazards identified
- description of unsafe work practices

- corrective actions taken

An inspection conducted in response to a new or previously unrecognized/unreported hazard will, in addition include:

A description of the new substance, process, procedure or equipment and a description of the new or previously unrecognized hazard

HAZARD CORRECTION

Procedure For Abating Hazards

There are two categories of hazards that will be identified during the inspections: Work area hazards identified during the walk-through surveys, and program deficiencies identified during the review of the Occupational safety and health programs. These hazards will be priorities for abatement according to the severity of the hazard.

Site Forman will initiate hazard abatement for hazards identified during the baseline or periodic inspection. The procedure for hazard abatement will be for the Forman to determine the priority of each hazard during his evaluation. The Foeman will have the authority to issue a work order indicating the priority and time line for which the hazard must be abated.

Interim control measures should be used if permanent control measure cannot be instituted in a timely manner.

When an imminent hazard is identified that cannot be immediately abated without endangering employees, the Foreman will remove the exposed personnel from the area except those necessary to correct the hazard. Such employees will be provided the necessary safeguards and training. The supervisor shall advise the Safety Representative of the hazardous situation.

The Safety Representative (or his delegate will track all work area hazards identified in the inspections to ensure that all items are abated in a timely manner.

The Safety Representative (or his delegate) will document in writing when a hazard is abated. This documentation will include the interim and permanent control measures.

TRAINING AND INSTRUCTION PROGRAMS

We recognize that 85% of all accidents and injuries are due to human error. The only preventative measure to avoid these losses is through an effective Training and Instruction Program to be implemented and documented as follows:

Safety and Health Training

Occupation Safety and Health Training will be provided for all employees at the following times:

All employees, upon implementation of this program who have not already participated in training in general safe work practices and specific instructions with respect to hazards unique to that employees job assignment.

- The employee is first hired.
- The employee is assigned to a job with new and different hazards.
- New substances, processes, procedures, or equipment are brought to the employer's attention.
- New or previously undiscovered hazards are brought to the employer's attention.

Initial Training will be conducted by HR. All other training will be provided and coordinated by trained field personnel. The content of the course will include the following at a minimum:

A review of the Company Injury and Illness Prevention Program Policy.

A review of the employee's responsibilities and rights, including access to records.

Safe work practices and procedures.

A review of the procedure and methods of reporting actual and/or suspect safety and health hazards.

A review of the procedure to report occupational injuries and illness's.

Safety and health training must be documented in writing for each employee. Records will be maintained. These records shall contain the following information:

- Name of the course
- Date and time the course was conducted
- Instructor(s) name(s)
- Summary of course content
- Printed name of the participants
- Signature of the participants

- Job classifications of the participants

EMPLOYEE ACCESS TO RECORDS/RECORD KEEPING

Employees have the right to access their records. All records may be obtained upon request from the Office Manager.

Record keeping for each phase of the Injury and Illness Prevention Program will be maintained as follows:

- 1) Employee Compliance
Company “Disciplinary Notice” forms shall be filed in the employee’s personnel file.
- 2) Employee/Employer Communication
Site Foreman will see that documentation from employee orientations, regular safety meeting, bulletin board information and items of anonymous suggestions and responses is placed in the “Employee Communication” file.
- 3) Hazard Identification
Management will establish a “Hazard Identification/Evaluation” file. All inspection reports and special review reports will be placed in this file.
- 4) Accident Investigations
HR will establish an “Accident Investigation” file for each individual injury, illness, and/or near misses.
- 5) Hazard Correction
HR will establish a “Hazard Correction: file. Management will monitor each safety hazard to ensure the correction is completed within the priority guidelines established in the Plan. Hazard correction will also be documented in regular safety meetings.
- 6) Training and Instructional Programs
The HR Manager will establish an individual “Training File” for each employee. All training as outlined in the IIPP will be documented for each employee in his/her file.
- 7) Record keeping
Records will be established and maintained by Management as follows:

- Item
- Employee Compliance Forms
- Baseline Inspection
- Periodic Inspection
- S & H Communication
- Correction of Hazards
- Training Records
- Employee Exposure
- Medical Surveillance
- OSHA 200 log
- Accident Investigations
- Hazard Reports

PROCEDURE FOR REPORTING OCCUPATIONS INJURY AND ILLNESS

Employees shall report all occupational injuries or illness” to their supervisor immediately, pursuant to the companies policies and procedures.

- 1) In the case of injuries that do not require immediate emergency treatment, the employee will report the injury to their supervisor prior to seeking medical treatment.
- 2) In the case of injuries do require immediate medical treatment, the employee must inform their supervisor as soon as possible.
- 3) As occupational illness” are often difficult to associate with a specific event or exposure, the employee will report the suspected illness to their supervisor as soon as there is a suspicion or diagnosis of an occupational illness.
- 4) At the time the employee reports an occupational injury or illness to the supervisor, the supervisor will notify Management to complete an Employee’s Claim for Worker’s Compensation Benefits with the employee, and give the employee copies.
- 5) The supervisor will assist the employee in obtaining prompt medical treatment of occupational injuries and illness’, if necessary. Only authorized medical facilities will be used unless there is a serious emergency.
- 6) Once the employee has been sent to receive medical treatment, the supervisor will complete an Employer’s Report of Occupational Injury or Illness and process it in accordance with the company’s policies and procedures.
- 7) In the event of a fatality or serious occupational injury or illness, the foreman or supervisor must notify the nearest OSHA office immediately.
- 8) Once the Employee’s Claim for Worker’s Compensation in received, Management will complete the Employer’s Report of Occupational Injury or Illness, and will then:

Human Resources Review the forms for completeness and forward the Employee's Claim for Workers' Compensation Benefits and the Employer's Report of Occupational Injury or Illness to the Worker's Compensation Division. One copy will be maintained in his/her files. Determine if the injury is recorded on the OSHA 200 log, if appropriate

OSHA INSPECTIONS AND CITATIONS

- 1) Management will be notified immediately of an OSHA inspection, and will assign the site Foreman to accompany the OSHA inspector, providing records as necessary.
- 2) In the case of a citation, corrective action to abate a OSHA citation should be initiated as soon as possible by the Safety Coordinator.
- 3) The Safety Coordinator should track abatement of the citation, correspond with Cal-OSHA and maintain all copies of correspondence
- 4) The Safety Coordinator will post a copy of the citation in a conspicuous location, and ensure that it remains posted for three days or until the citation has been abated, whichever is longer.

This program has been written for the exclusive use of Data Cell Systems, Inc. photocopying or reprinting is strictly prohibited without the written consent of Management.

MANAGER'S RESPONSIBILITIES

Most accidents can be prevented by employees working safely. The persons most likely to support and encourage the safe working practices of our employees are the department managers (i.e. managers, supervisors, foremen). For this reason, the company holds its department managers responsible for implementing and enforcing the company's general safety, the safety performance of their respective departments will be measured along with their overall management performance.

The following are some of the major safety responsibilities of managers.

1. Managers ensure all employees are provided proper instruction and guidance in correct work procedures to all employees under their supervision. Initial general instruction shall be conducted by the Safety Coordinator with specialized on the job training to be conducted by each foreman and/or supervisor.
2. Prior to the start of work, the manager or his job foreman shall make a thorough survey of the conditions of the site to determine, so far as practicable, any such predictable hazards to employees. After determining, any such predictable hazards associated with a particular

job, the manager or his foreman should then provide all necessary safeguards to enable his employees to conduct the work in a safe manner.

3. Managers shall make every effort to insure that their department's procedures are not potential causes of accidents by organizing and conducting an inspection program.
4. Managers shall insure that safety equipment (such as fire extinguishers, monitors, hard hats, breathing air equipment, etc.) are installed, maintained, and used wherever necessary in their respective departments.
5. Managers responsibilities also include providing a safe working environment, and taking corrective action when employees unnecessarily endanger themselves or others.
6. Managers shall ensure that all sub-contractors have at least as an effective safety program as Data Cell Systems, Inc. before allowing the sub-contract company to perform a service on client property.
7. Managers shall enforce all safety regulations and policies contained herein which apply to their operation or department.
8. Managers are responsible for guiding and encouraging the safe practices of their employees by setting a good example, by abiding by and promoting all company safety policies.
9. All management personnel must encourage employees to develop overall safety awareness, and to help them understand that safety is part of doing a job correctly.
10. Managers and their foremen are responsible for explaining the company safety program and policies to their respective employees, and insuring that each employee understands.
11. Managers must advise new employees of applicable safety regulations and company policies as a part of their orientation.
12. The department manager should immediately investigate the circumstances surrounding any accident in which one of his employees is involved which results in personal injury and/or property damage. He should personally, if possible, advise the Safety Coordinator or the incident, and together they should prepare and process the appropriate reports.
13. Managers shall make every effort to prevent similar accidents from

recurring by conducting effective accident investigations and compiling proper reports. Accident and/or injury reports should be reviewed periodically to identify the possible or probable causes of all accidents. Steps should then be taken to eliminate those causes wherever possible.

14. Managers will be held accountable to the Company owner for their department safety programs and for the overall safety of their employees.
15. Safety records will be considered by the Company owners in the performance evaluations of the company managers.
16. Managers, Supervisors, and Foremen are responsible for becoming familiar with and enforcing all client safety policies and procedures.

EMPLOYEES' RESPONSIBILITIES

It is a well established fact that eighty-five percent (85%) of all accidents can be attributed to human error. When an industrial accident or injury occurs, its effect and long range consequences can be far reaching in that the injured employee, his family, his co-workers, and his employer all suffer in one way or another. It is therefore incumbent upon each employee to do his part to make his or her company a safer place in which to work. The following are some of the major safety responsibilities of each employee.

1. Each employee shall read and become familiar with the content of the safety policies and procedures of Data Cell Systems, Inc. and will be required to pass a written exam prior to the start of work.
2. Employees shall immediately report any personal injury or accident in which they are involved whether or not it requires medical attention. The incident should be reported to the foreman or, in his absence, to the manager of his department.
3. Each employee shall abide by the safety regulations and policies contained herein.
4. If an employee doubts any job procedures from a safety standpoint, it is his/her responsibility to consult with his/her foreman or manager before proceeding.
5. Employees shall report to their foreman all suspected hazardous conditions or incidents which might affect the safety of themselves, their co-workers or the public.
6. Employees are required to attend all scheduled safety meetings.
7. Working safely should be the first consideration of each employee.
8. Think before you act and when in doubt, ask!

WORK ATTIRE AND PROTECTIVE CLOTHING

1. Employees shall not work in clothing which is saturated with any flammable, hazardous or irritating substances. Such clothing shall be immediately removed and replaced with suitable clothing after the affected skin area has been thoroughly washed and treated as necessary.
2. Employees are not permitted to work without a shirt, nor shall they wear loose or ill-fitting clothing that might catch on equipment. Tank tops or sleeveless shirts are also not permitted.
3. Torn or frayed clothing is a safety hazard both to you and to the employee who has to rescue you from an accident caused by such. It is strictly forbidden to work in clothing in this condition.
4. Tennis shoes are strictly forbidden for work in any of Data Cell Systems, Inc. jobs or work areas. A leather work boot is the minimum acceptable foot protection for any employee working outside the office building.
5. Jewelry or other adornments that might get caught in moving equipment shall not be worn in the work areas.
6. Special protective clothing will be required when working around areas that could result in exposure to hot fluids, corrosive or poisonous substances. A joint effort between the employee and his foreman should be made in identifying these situations. Examples of this clothing would be: head sock and air mask during sandblasting, chemical zoot suit during work in contaminated environments, thermo- suits during work which could result in skin burns from high heat temperatures.

HAND PROTECTION

1. The use of gloves, whenever practicable, is required. Gloves prevent minor injuries when employees are handling rough materials or working around skin irritants.
2. Rubber thermo gloves should be worn when working around or with fluids or substances that are by nature hot in temperature or could cause skin irritation.
3. Rubber gloves will be worn at all times while working with grout.

HEARING PROTECTION

1. Ear protectors shall be worn when excessive noise cannot be eliminated by engineering controls. Hearing protection must be worn when personnel cannot communicate with each other without shouting in a loud voice and in all posted areas. The company will conduct annual noise surveys to identify operations that require hearing protection.

HEAD, EYES, FACE AND FOOT PROTECTION

1. Canvas shoes or tennis shoes are not suitable foot-wear for working and will not be authorized or permitted while on the job. Minimum acceptable footwear will be recognized as a leather work boot of sufficient height so as to cover the lower leg and ankle area. Steel-toed footwear is required when working around any process that could result in an injury to the foot from falling objects or crushing from large objects. Note that some of Data Cell Systems, Inc. Contractor's clients require steel-toed work boots as a mandatory safety item and therefore would then become a condition of employment. Employees are required to provide their own foot protection under normal conditions.
2. Special foot protection may be required for employees who are exposed to possible foot injuries from hot fluids, corrosive, poisonous substances.
3. Hard hats are a mandatory safety item and shall be worn by all employees when working on, near, or around job sites requiring head protection, i.e., oil leases. Employees working as welders shall be exempt from wearing hard hats only while they are in the actual process of welding.
4. Face shields and goggles, shall be worn by all employees engaged in any work in which hazards are possible as a result of flying debris from chipping, grinding, or hammering processes, chemicals, flash fires, etc. **THIS STATEMENT APPLIES ESPECIALLY TO EMPLOYEES WORKING AS WELDERS, HELPERS.** Other appropriate eye protection such as safety glasses shall also be worn as required.
5. Welders and welder's helpers shall be safeguarded with approved goggles and lenses or other approved eye protection during all cutting operations and/or whenever a cutting torch is being used.
6. All employees shall be safeguarded with approved goggles and a full face shield while using stationary or portable grinding equipment.

HORSEPLAY

1. Horseplay is NOT permitted on company property or on job sites at anytime. Such diversions as wrestling, fighting, tripping, throwing materials, and/or playing jokes on fellow employees are prohibited.
2. Do not distract other employees as the work: to do so could cause them or someone else to become seriously injured.

HAIR

All field personnel will maintain their hair in a manner as not to present a safety hazard (i.e. long hair and/or facial hair must be restrained as not to become an entanglement hazard.)

PERSONAL FALL ARREST SYSTEMS

These consist of an anchorage, connectors, and a body belt or body harness may include a deceleration device, lifeline, or suitable combinations. If a fall arrest system is used for fall protection, it must do the following:

Limit maximum arresting force on an employee to 900 pounds when used with a body belt.

Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness.

Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level.

Have sufficient strength to withstand twice the potential impact energy off an employee free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.

THE USE OF A BODY BELT FOR FALL ARREST IS PROHIBITED.

Personal fall arrest systems must be inspected prior to each use for damage, and other deterioration. Defective components must be removed from service. D-Rings and snaphooks (locking type) must have minimum tensile strength of 5,000 pounds. D-Rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or suffering permanent deformation.

1. Mandatory use of approved body belt or body harnesses with attached lanyard is required by all personnel when work is performed from thrust outs or similar location, such as trusses, beams, purlins, or plates of 4-inch nominal width, or greater, at elevations exceeding 6 feet above ground, water surface, or floor level below and where temporary guardrails protection is impracticable.

2. Mandatory use of a body belts or body harnesses with attached lanyard is required by all personnel whose work exposed them to falling is excess of 7 ½ feet from the perimeter of a structure, through shaft ways and openings, sloped roof surfaces steeper that 7:L12, or other sloped surfaces steeper that 40 degrees not otherwise adequately protected. Sections 1669 “Safety Belts and Nets” and 1670 “Safety Belts, Drop lines and Lanyards” of Title 8 of the California Code of Regulations are attached to this policy for reference. The provisions of these code sections are required to be followed on all Data Cell Systems, Inc., job sites.

3. The use of a body belt or body harness with attached lanyard is required by all personnel working out of or being lifted to a work area within a man cage.
4. All scaffolding must have a handrail if it reaches higher than (10') ten feet and must be secured so as to prevent tip-overs.

HOUSEKEEPING

1. Efforts should be made on all employees' part to maintain a clean and orderly job-site.
2. The disposal of trash and refuse directly onto the ground or into pipeline ditches is strictly prohibited.
3. The direct disposal of welding rod stubs onto the ground is strictly prohibited. Each employee working as a welder should have a bucket provided for the containment of stubs.

SMOKING

1. Smoke only in a safe and authorized areas.
2. Each job-site will have an area designated as a safe smoking area by the foreman. It will be that area only in which smoking will be allowed.
3. Examples of areas or times for which smoking is prohibited are:

Inside a tank or vessel, within a tank farm area, while fueling an engine, during any "hot-tap work, in any area designated as NO SMOKING.

FIRST AID

Definition - First Aid is the care rendered to an ill or injured person before full medical care can be administered. First Aid requires little training, no tools and can be administered by any able-bodied person available. The only prerequisite for effective first aid is the desire to help and common sense.

A convenient guide to a simple common sense approach to first aid is presented in this manual.

1. Never do anything to an injured worker without a reason.
2. If you have a reason to do anything for an injured person, do it.

3. Confine your efforts to preventing further injury and acquiring appropriate medical assistance (avoid the tragedy of increasing the damage by good-intentional ineptitude. Leave the fancy stuff to those who are trained in emergency medical care.)

Very few emergencies are truly life-threatening. Early recognition and appropriate reaction to a life-threatening situation can be a very rewarding experience for both the rescued and the rescuer. Life-threatening situations are almost exclusively the result of compromise to one or more of the following:

Biological Parameters:

1. Breathing
2. Circulation of blood under adequate pressure and adequate volume.
3. Shock.

It is beyond the scope of this manual to attempt to teach first-aid cardiopulmonary resuscitation. We do strongly suggest that all our employees avail themselves to local CPR training.

EXCAVATING AND TRENCHING

Before opening any excavation, efforts shall be made to determine if there are underground utilities in the area. Many jobs require that Underground Service Alert (USA) be notified prior to digging. It is the foreman's responsibility to insure such notifications are made when required. On other projects that do not require USA notification, locating underground utilities can be as simple as using a little common sense in approaching your work area. If there is a pumping unit on your left, a power pole on your right, and you are going to dig a ditch down the middle: there is a good chance that there is an underground conduit to be exposed. All such utilities shall be located and protected during the excavation operation. This includes underground lines of any type.

The walls and faces of all excavations and trenches, in which employees might be exposed to danger from moving ground, shall be guarded by a shoring system, sloping of the ground, or some other equivalent means. OSHA states that trenches or excavations 5' -0" or deeper that require the work-force to enter them to perform work will be shored or sloped before allowing the work-force to work within. Trenches from 1 foot- 20 feet deep will be evaluated by a trained (Competent) supervisor to evaluate soil and surrounding hazards to determine required protective measures such as shoring/sloping.

In the event that a trained (Competent) supervisor is not available to determine appropriate protective measures, the trench/excavations will be sloped at an angle not steeper than 1.5 to 1, or 34 degrees.

All trenches/excavations exceeding 20 feet in depth will be designed by a Registered Professional Engineer.

Data Cell Systems, Inc. will rely on “Competent” supervisors to evaluate trench/excavation operations for hazards and to take prompt corrective measures to eliminate such hazards.

Persons designated as “Competent” supervisors will attend annual training. Training will include, but not be limited to the following topics:

1. Procedures for notifying Regional Notification Centers and owners of underground facilities.
2. Access and egress to excavations and trenches
3. Exposures to vehicular traffic
4. Exposures to falling loads
5. Warning systems for mobile equipment
6. Hazardous atmospheres
7. Protection from hazards associated with water accumulation
8. Stability of adjacent structures
9. Protection of employees from loose rock and/or soil
10. Inspections
11. Soil evaluation/classifications
12. Application of protective techniques (i.e. shoring, sloping, etc)

No employee will be allowed to work “single-handed” within an excavation deeper than 3’-6”.

No excavation will be dug with a back hoe or other similar equipment without a designated employee to act as a “spotter”. It will be that employee’s responsibility to assure that no damage is done to buried lines or equipment during the excavation process.

All employees working in the area of operating excavation equipment should be aware of the additional hazards posed by working around moving machinery.

Make your presence known to the operator!

No open excavations should be left unattended without some type of barricading to prevent accidental injury to personnel.

In the event that during an excavation process electrical lines are exposed:

1. Halt all work
2. Do not attempt to straighten or repair
3. Treat the wires as if they are energized
4. Notify your foreman
5. Await instructions from your foreman on what and how to proceed.

No worker shall be allowed inside a trench while heavy equipment is back filling unless he is in full view of the operator.

ELECTRICAL

Respect and strict adherence to rules regarding electricity and electrically powered equipment is mandatory. Low voltage, below 110 volts, can and has produced fatalities.

Only designated qualified employees shall be permitted to work on or make any repairs to any electrical lines, machinery, tools or equipment.

The use of extension cords is generally not recommended. When using cords they should be three wire types and equipped with three-prong grounding plugs. Air powered tools should be considered for jobs that are in hazardous areas.

You would not take an electrical tool into a tank with standing water on the floor.

One of the greatest hazards to personnel and equipment involves the movement of equipment in the vicinity of power lines. Since there are very rigid safety regulations to be followed when moving equipment near or around power lines, responsible management (foreman) should review each situation with the respective operator and involved personnel, discussing the potential for injury, safety regulations, and consider all options available for performing the work before authorizing the work to proceed. Always use a spotter.

Protective equipment such as approved rubber insulating gloves, insulating blankets and dielectric hard hats shall be worn if there might be a possibility of arcing or sparking.

At least minimum electrical clearance must be maintained when operating any equipment close to high voltage lines. The operation of such equipment (i.e. hydrocranes, backhoes, A-frames, side-booms, etc.) closer than the distances listed below is positively prohibited.

VOLTAGE	MINIMUM CLEARANCE
400 TO 50,000 VOLTS.....	10 FEET
50,000 TO 75,000 VOLTS.....	11 FEET
75,000 TO 125,000 VOLTS.....	13 FEET
125,000 TO 175,000 VOLTS.....	15 FEET
175,000 TO 250,000 VOLTS.....	17 FEET
250,000 TO 370,000 VOLTS.....	21 FEET
370,000 TO 550,000 VOLTS.....	27 FEET
550,000 TO 1,000,000 VOLTS.....	42 FEET

WELDING AND BURNING

Employees should remember that all welding and burning operations may have a high potential for personal injury and fires. Only authorized experienced persons are allowed to do any electrical or acetylene welding or burning. No welding or burning shall take place in any areas where the atmosphere is suspected or proven to be of a volatile nature. All welding or burning work areas will be checked by the foreman with a “Gas-tech” type monitor prior to actual work beginning so as to assure a safe working environment.

It is the responsibility to the welder and the foreman to assure that all employees working within the vicinity of welding be aware of possible eye damage caused by viewing the welding arc with unprotected eyes.

Face shields and goggles, shall be worn by all employees engaged in any work in which hazards are possible as a result of flying debris from chipping, grinding, or hammering processes, chemicals, flash fires, etc. **THIS STATEMENT APPLIES ESPECIALLY TO EMPLOYEES WORKING AS WELDERS HELPERS.** Other appropriate eye protection such as safety glasses shall be worn as required.

Welders and welders helpers shall be safeguarded with approved goggles and lenses or other approved eye protection during all cutting operations and/or whenever a cutting torch is being used.

No employee shall do any welding or burning in hazardous areas without instructions and written burning and welding permits from the proper authorities.

Matches should never be used to light torches. Use a spark lighter or stationary pilot flame.

Make sure there is plenty of fresh air when welding in closed or confined places, and never use oxygen for ventilation.

When welding, cutting, or heating operations are performed in manholes, pits, tunnels, deep trenches, tanks or other confined spaces, ventilation systems are required to exhaust

fumed smoke. Avoid breathing welding fumes or smoke. Follow Company Confined Space Entry Procedures.

Do not overload welding cables or operate with poor connections. Place welding ground cable directly on involved work piece and as close as possible to the work area. **AVOID JUMPING GROUND CURRENT FROM PIECE TO PIECE.** Turn off cylinders and machinery when not in use and roll up cables and hoses.

Do not burn or weld so that hot sparks, hot metal or severed sections will fall on cylinders, hoses, machinery, legs or feet, or on flammable materials, or where they may strike personnel working below.

When cylinders are empty, turn them off. Remove the gauges then put the protective cap on and mark them "MT" or "Empty".

Keep "empties" and "fulls" separate by using a chain across the storage racks and always tie the bottles, or use a buggy.

Full acetylene cylinders must be stored separately from oxygen cylinders or separated by a non combustible shield.

Protect other workers and the public from arc rays where there could be exposure.

Never weld or burn on barrels, tanks, piping, or other systems which may have contained combustible materials or other unknown products without proper testing, monitoring, and/or appropriate permits.

Never walk around the end of an open pipe that has contained petroleum while a welder is cutting; there is always the chance it could flash.

It is the welder's responsibility to make sure all welding gas tanks have check valves on them to prevent possible explosion.

It is the responsibility of the employee working as a designated welder's helper to assure that all flammable objects have been removed or secured from the area before any work begins (See Fire Section For Fire Watch Duties). It is also his responsibility to act as fire-watch during the actual welding process as it is the responsibility of the welder when the helper is grinding or preparing the area.

Fire fighting tools and equipment will be fully understood and readily available in the work area.

Face shields and goggles, shall be worn by all employees engaged in any work in which hazards are possible as a result of flying debris, chemicals, flash fires, etc. Other appropriate eye protection such as safety glasses shall also be worn as required.

MOTOR VEHICLES

Never operate a motor vehicle or piece of equipment for which you have not been properly trained and authorized to operate. It is the employees responsibility to bring to the attention of his foreman any conditions that exists making the vehicles that he is operating unsafe and or any maintenance conditions that exist that require attention.

The driver of a company vehicle is responsible for operating the vehicle in a safe and legal manner, for using the vehicle only for the purpose for which it was designed, and the safety of his passengers or helpers. This includes reducing your speed and taking other necessary precautions when poor road condition and/or inclement weather conditions (rain, fog, blowing dust, etc) so require.

Drivers are personally liable for the consequences of state and community traffic violations.

Employees driving company vehicles or equipment shall yield the right-of-way to avoid accidents.

All drivers of company vehicles must have a valid Class 1, 2 or 3 driver's license as required by law. It is the employee's responsibility to notify the office thru his foreman of any changes in his license status beyond his date of hire.

Before driving vehicles, drivers shall inspect the condition of the following:

- | | |
|----------------------|--|
| 1. Brakes | 10. Steering gear |
| 2. Fuel Supply | 11. Oil and water levels |
| 3.. Tires | 12. Connecting cables |
| 4. Lights | 13. Emergency equipment |
| 5. Horn | 14. Fire extinguishers |
| 6. Windshield | 15. Chock blocks |
| 7. Headlights | 16. Reflectors |
| 8. Tail lights | 17. First Aid Kit |
| 9. Rear view mirrors | 18. Special equipment as
may be needed. |

Seat belts in motor vehicles shall be used both by drivers and passengers.

Trucks or other vehicles shall not be overloaded with passengers or materials.

All loads shall be properly placed and secured, and projections properly flagged with a red flag. Liquids having a flash point of less that 150 degrees F shall be carried in approved containers outside the passenger compartment.

In case of breakdown, a vehicle should be parked with all wheels off the roadway, if possible. Flares or reflectors shall be placed in the area of the disabled vehicle in accordance with the requirements of State Motor Vehicle Department. During towing operations, no one shall be between or in front of any piece of equipment while it is in motion.

No worker shall be allowed to ride outside the cab of any truck unless he sits flat on the bed with his back against the cab, and then only for a short distance on a job site. Arms or legs should never be dangled over the sides. Workers should never ride on fenders, tailgates, running boards, or loads.

Employees shall not ride on the back of a tractor, on the top of side rails, on top of the cab, on running boards, fenders, or the hood, or stand on the tow-bar between vehicles.

The driver should be sure that an towed trailer, air compressor, or other construction equipment is securely attached to the towing device. The safety chain must be secured to both the truck and equipment being towed. Also, it must be ascertained that the brake and signal lights are properly connected, when required.

A truck or piece of heavy equipment should never be operated in dangerous areas such as near the edges of deep fills, cut banks, or steep slopes because of the possibility of overturning.

The parking brake must be set and the ignition turned off when a vehicle is parked. Vehicles must not be left unattended until after the motor has been shut off, parking brakes set, and gear engaged in "low" or "reverse"

No employee shall work underneath a vehicle which is being supported by jacks or chain hoists without adequate protective blocking installed to prevent injury in case the jack or hoist fails.

No employee shall drive a company vehicle if they have consumed an alcoholic beverage within the previous twelve (12) hours nor shall they drive a Company vehicle if they are drunk or under the influence of any drugs legal or illegal which could effect their judgment.

Company vehicles are to be driven by authorized employees only, not relatives or friends. Personal use of Company vehicles is prohibited.

Procedures for Reporting and Handling Auto/Equipment Accidents

1. Stop immediately. Put out reflectors or flares if safe to do so. Request that someone warn on-coming traffic.
2. Assist anyone who might be injured. Request that someone telephone for medical aid. Keep injured persons warm and quiet.

3. Request that someone telephone the police
4. Telephone or radio your immediate supervisor, the company dispatcher or the safety coordinator. If for some reason you are unable to make the call, ask someone at the scene to make it for you.
5. Do not leave your equipment or cargo unattended, see that it is protected. Do not move equipment until instructed to do so by the police, unless its position creates an additional hazard.
6. Obtain names, addresses, and telephone numbers of all witnesses. Get the license number of vehicles involved in the accident as well as those of others in the immediate vicinity.
7. Do not argue the facts of the accident. Sign nothing. Give the facts of the accident, as you believe them to be, to police or law enforcement officials only.
8. Never admit liability nor agree to pay for damages.
9. Draw a rough diagram of the scene of the accident, including streets, buildings, the position of vehicles, the locations of pedestrians, skid marks, etc.
10. Complete the attached Auto Accident Report with as much detail as you know as soon as possible.

HEAVY EQUIPMENT OPERATIONS

Only designated, authorized, and qualified operators are permitted to operate or service any heavy equipment or vehicle.

The qualified operator will always visually inspect his equipment (for its ability to operate safely) and will check all oil levels and lube the equipment prior to each day's operations. Good safety and lubrication practices will keep the equipment running safely all day. It is the employee's responsibility to bring to the attention of his foreman any conditions that exist making the equipment that he is operating unsafe and/or any maintenance condition that exists that requires attention.

The operator of any heavy equipment must inspect the equipment and complete all necessary inspection logs prior to its use on each shift. If the inspection reveals seriously defective items which might cause unsafe conditions, it must be promptly reported to the manager of the department in which the operator is working. The equipment should not be operated until the defective items have been repaired.

Fire extinguishers are to be kept on all heavy equipment. They should be checked daily for adequate pressure and availability. Know where the extinguisher is – you might need it.

Rated load capacity charts, recommended operating speeds, special warning signs, and other essential information must be conspicuously posted on all heavy equipment. The equipment must be operated within those limits.

All employees must stay out of the swing and reach capabilities of equipment clear of all rotating parts and in clear view of the operator.

Operators must take signals from only one person, except in an emergency, when a stop signal can be given by anyone. The operator must, at all times, be in constant visual or verbal contact with the signalman while moving a load.

All boom equipment must be kept at least ten (10) feet away from any electrical lines

No one, except the oiler or operator shall be permitted to work within ten (10) feet of any operating trencher boom, conveyor or back hoe. If rocks, roots or dirt need to be moved, the machine must stop and turn off before anyone tries to work on it.

No one shall be permitted to ride on heavy equipment unless there is an authorized seat for that person.

Never stand under a side boom and never hold on to a boom cable or ride on the cable into or out of a ditch.

Always stay alert to moving equipment and watch out for your fellow employees.

Never stand under a load that is being supported by a boom or crane.

All loads being hoisted with a crane higher than shoulder height must be secured from uncontrolled movement by tagline(s)

Tagline(s) will be used at all time when hoisting pipe by a crane

No employee shall be permitted to “ride the load” while it is being hoisted nor shall they be allowed to ride the head-ache ball. Personnel shall be hoisted in an approved safety man-cage only.

When installing U-bolts on wire rope, use at least three (3) U-bolts spaced at a minimum of six (6) rope diameters apart. The U shall be placed on the short end of the rope.

No heavy equipment shall be left unattended, or worked on, until the hydraulic moving parts are lowered to the ground.

Before operating equipment near the tops of cuts, and/or cliffs, check to make sure no one is below.

If your equipment touches high-voltage lines, you will usually be safe if you remain in the cab. If you can not break contact with the line you may need to jump clear of the vehicle. If you do jump, jump clear and do not touch any part of the equipment when or after you reach the ground. If you have to leave the scene to notify someone of the accident, make sure someone stays with the equipment to keep other people away from it.

TRAFFIC CONTROL

A suitable traffic control plan must be developed for guarding work areas close to all public streets as well as some on-site projects or developments. Every reasonable effort must be taken to minimize worker exposure to moving traffic.

All work areas should be roped off with barricades and tape to prevent foot traffic or vehicles from driving into equipment, ditches or employees.

Always have warning devices located in positions to give motorists adequate warning of an upcoming job site on the roadway.

Where warning devices are not enough and if the foreman deems it necessary, a flagman should be positioned to control traffic.

A flagman must be alert and trained in flagging techniques. Communications on traffic flow must be maintained at all time between flagmen.

SPECIAL HANDLING OF HAZARDOUS SUBSTANCES

Be on the alert for signs and/or warning of hazardous areas and situations. Yellow signs and yellow lines, for instance, announce and designate places where dangerous chemicals exist. No one may enter areas bounded by yellow lines without permission from authorized sources and then only if wearing the required protective equipment and clothing.

EXPLOSIVES

An explosive is any chemical compound, mixture or device whose primary purpose is to junction by explosion with the substantial release of heat and gas.

Class A Explosives present a maximum hazard through mass detonation.

Class B Explosives are those materials or devices which function by deflagration; and present a flammable hazard.

Class C Explosives contain restricted quantities of either Class A or Class B explosives or both but present a minimum hazard.

Possible hazards from explosives:

- a. Blast over pressure and shock wave
- b. Fragment scattering
- c. Fire Proliferation

COMPRESSED GASES

Compressed gas is any material having an absolute pressure in the container exceeding 40 psi @ 70 degrees F or having an absolute pressure exceeding 104 psi @ 130 degrees F.

Flammable gas is any compressed gas capable of forming ignitable mixtures with air.

A nonflammable gas will not burn but may support combustion.

Possible hazards associated with compressed gases.

- a. Container rupture
- b. Fire, explosion
- c. Asphyxiation
- d. Toxicity
- e. Corrosively
- f. Frostbite
- g. Reactivity

FLAMMABLE AND COMBUSTIBLE LIQUIDS AND LIQUIDS

A flammable liquid is any liquid with a flash point below 100 degrees F.

A combustible liquid is any liquid that has a flash point at or above 100 degrees F, but below 200 degrees F.

A pyrophoric liquid is any liquid which ignites spontaneously in dry or moist air at or below 130 degrees F

Possible hazards associated with flammable and combustible liquids

- a. fire
- b. container rupture
- c. explosion
- d. toxicity
- e. corrosively
- f. soil and/ or aquatic contamination

FLAMMABLE SOLIDS

A flammable solid is any solid material which is liable to cause fire through friction or retained heat from manufacturing or processing or that can be readily ignited, and when ignited, burns so vigorously and persistently as to present a serious transportation hazard.

Air reactive solids will ignite at normal temperatures when exposed to air.

Water reactive flammable solids will react in varying degrees when mixed with water or contact with humid air

Spontaneously combustible solids can decompose in the presence or absence of air

Possible hazards associated with flammable solids:

- | | | | |
|----|-----------|----|-------------|
| a. | Fire | c. | Toxicity |
| b. | Explosion | d. | Corrosivity |

OXIDIZERS

An oxidizer is a substance which yields oxygen readily to stimulate combustion.

Possible hazards associated with oxidizers:

- a. Increase in fire intensity
- b. Sensitivity to heat, shock, and friction
- c. Spontaneous reaction with organic matter

An organic peroxide is an unstable organic derivative of the inorganic compound hydrogen peroxide.

Possible hazards associated with organic peroxides:

- a. Fire
- b. Explosion
- c. Sensitivity to heat, shock and friction
- d. Toxic products of combustion'
- e. Exposure to fire may evaporate inhibitor and increase chance of violent reaction.

POISONS AND ETIOLOGICAL AGENTS

Poison A is a gas or liquid of such a nature that a very small amount is dangerous to life.

Poison B is any substance known to be so toxic that a severe health hazard exists if the material is released during transportation.

Irritating materials are liquids or solids which, upon contact with fire or exposure to air, give off dangerous or irritating fumes.

Possible hazards associated with poisons:

- a. Inhalation, ingestion, absorption, or ingestion may be harmful
- b. Container rupture
- c. Fire
- d. Soil and/or aquatic contamination

Etiologic agents are living micro-organisms that may cause human disease.

RADIOACTIVE

A radioactive material is any material that spontaneously emits ionizing radiation

Possible hazards associated with radioactive materials:

- a. Lethal or sub lethal effect
- b. Smoke, steam or runoff may be contaminant source.

CORROSIVES

A corrosive is any liquid or solid that can destroy human skin tissue or any liquid that has a severe corrosion rate on steel.

Possible hazards associated with corrosives:

- a. severe health hazard
- b. violent reaction with some materials
- c. container rupture
- d. some may act as oxidizer
- e. heat of reaction may be sufficient to ignite combustible matter
- f. flammable reaction products may be produced
- g. Soil and/or aquatic contamination

ACIDS, CAUSTICS OR OTHER CORROSIVE CHEMICALS

Identify the materials that you are working with, know what the hazards are, know what protection is required and understand what available first aid treatment should be before any work begins.

Wear protective clothing as ordered by the foreman. The minimum protection shall be chemical goggles and gloves.

Before starting work, note the location of emergency showers, eyewash fountain and other nearby sources of water.

If you come in contact with corrosive chemicals, immediately wash the affected parts with large amounts of running water for a minimum of fifteen(15) minutes. Remove contaminated clothing at once. Immediately after thoroughly washing, report to a designated medical clinic since further treatment may be necessary.

Before opening a plugged line that is suspected of containing pocketed chemicals under pressure, make a small hole in the pipe with a shielded drill to relieve pressure.

Some chemicals, although not strong enough to cause immediate burns, can result in skin irritations if contacted repeatedly or for a long duration. All exposures to skin surface should be washed clean with fresh water.

Some materials can cause respiratory of irritation if their dusts or vapors are breathed. Wear proper breathing devices when working with or near them.

Some materials, although not felt at once, can cause chronic or systemic poisoning. Be certain of the properties of every substance handled. Take precautions as directed when handling those that are toxic. Consult your Foreman if in doubt.

Handle tools with caution when working around acid, caustic or other chemicals of dangerous nature. Avoid dropping tools where they may cause a splash.

Wash at once, with running water, any toll known to be contaminated. Thoroughly clean all tools after each use when they are being used around corrosive chemicals.

Avoid, as much as possible, the use of rope slings or lines near corrosive chemicals. When rope or cable is placed into service, it should be carefully checked daily. Mark and return discarded equipment to the tool room.

GASES

All hydrocarbon vapors are flammable and may form explosive mixtures with air. Vapors can be heavier than air. Vapors that are heavier than air will tend to settle to the ground in low spots such as trenches or bell holes, and from there they travel until dissipated or

until they reach an ignition source. It is these hydrocarbon vapors and this hazard that arises most in our day to day work within the oil field. The potential for an accident caused by the flammable and explosive nature of these gases is very real and should be recognized and guarded against daily. It is the responsibility of the foreman to assure that all work areas are of a safe environment and that the atmosphere of that work area has proven to be free of any hazardous or flammable gases.

No work, especially welding or burning, shall take place in any areas where the atmosphere is suspected or proven to be of a volatile nature. All welding or burning work areas will be checked by the foreman with a "Gas-tech" type monitor prior to actual work beginning. Continuous monitoring may be required of a work area to assure that a safe working environment is maintained.

At it is with these "Gas-tech" type monitors that we establish proof of a safe atmosphere, all employees should have a good working knowledge of the monitor and of the established limits on read-outs. It will be the responsibility of the foreman to assure all employees on the site meet this requirement.

LEL-LOWER EXPLOSIVE LIMIT

Read in percentage scale

At 10% notify foreman of situation

At 14% extinguish all open flames,

Shut down all equipment, immediately evacuate the area

02- OXYGEN

Read in percentage scale

21.5% is normal

18.5% evacuate the area to a fresh air area

Insufficient oxygen to sustain life

H₂S-HYDROGEN SULFIDE

Read in parts per million (ppm)

with a decimal

5.0 ppm – Notify foreman of situation

8.0 ppm – Foreman should be re-informed

10.0 ppm – Extinguish all open flames and immediately evacuate the area.

Other hazardous gases, such as ammonia, chlorine, hydrogen sulfide, sulfur dioxide, and nitrogen oxides are very toxic even in relatively low concentrations. They may cause sudden death if a worker is not properly protected when exposed to hazardous concentrations. Additionally, contact with exposed skin surfaces can result in a freeze burn or a chemical burn. A brief description of the characteristics and effects of the characteristics and effects of some common gases follows. Additional

information about these and other chemicals can be obtained from your foreman.

HYDROGEN SULFIDE

H₂S is a colorless, flammable, toxic gas. At a level of 5 parts per million (PPM) the foreman must be notified. At 8 PPM the foreman should be re-informed and at 10 PPM extinguish all open flames and evacuate the area. In low concentrations, it smells like rotten eggs. Do not rely on odor alone, because the sense of smell is deadened soon after breathing the gas. H₂S may be encountered in vessels, tanks, lines, and sewers in some operating units. Continued exposure may quickly cause unconsciousness and death. Remove persons exposed to H₂S from contaminated area immediately, but first protect yourself with breathing equipment and have someone stand by. If the injured person is not breathing, start artificial respiration, and send for the ambulance.

HYDROGEN SULFIDE RELEASE PLAN

In our area of work, the possibility of encountering hydrogen sulfide in harmful concentrations is a constant hazard. Employees should always be aware and on the constant lookout for this hazard.

Things to remember about hydrogen sulfide:

1. H₂S is colorless and cannot be seen
2. In low concentration, H₂S has a smell of “rotten eggs”.
3. Just because you cannot smell H₂S does not mean it is not present. Large concentrations of H₂S destroy the sense of smell.
4. H₂S is heavier than air and will tend to accumulate in low places
5. H₂S is very flammable.
6. To escape H₂S, go into the wind and to a higher elevation or up a hill.
7. If someone goes down due to H₂S, do not try to rescue without wearing proper protection equipment. You could be the second person down.
8. Monitoring will be done by all employees working in identified H₂S areas.
9. See RESPIRATORY PROTECTION PROGRAM for required medical treatment and training for wearing of respiratory protection equipment.

10. Long duration exposure to low PPM amounts may also be just as dangerous as a high dose.

11. Employees working within an atmosphere with known contamination of H₂S gas will be required to wear respiratory protection equipment.

SULPHUR DIOXIDE

SO₂ is a colorless gas with a biting odor. In strong concentrations it is highly irritating to the eyes and the membranes of the nose and throat. Acute poisoning from inhalation of sulphur dioxide is rare, for it is so irritating to the eyes and throat that a person cannot remain in areas with a high concentration of the gas.

CARBON MONOXIDE

CO is usually a by-product of combustion and is always present in the exhaust of internal combustion engines. This gas is odorless and without warning properties. Precautions must be taken to prevent exposure to carbon monoxide when working in confined spaces around furnaces, kilns, or wherever flue gases or engine exhausts are not fully ventilated.

CARBON DIOXIDE

CO₂ is a colorless, odorless, non-flammable gas. It is used in many places in refinery to displace air in vessels or lines where the oxygen in the air, in combination with the vessel's contents, is a fire or explosion hazard. It is widely used in its liquid or solid (dry ice) form as a chilling agent. A small increase in the percentage breathed increases the rate of breathing. High concentrations paralyze the respiratory centers and cause asphyxiation. Carbon dioxide is heavier than air and will remain in vessels that are merely open at the top. If any quantity escapes to the air, it will tend to gather in low spots or holes.

INERT GAS

Carbon dioxide and nitrogen are used as "inert gas" either separately or as a mixture. atmospheres that have been inerted will not sustain life, and require a Scott Air Pak or other supplied air breathing device to enter them.

NITROGEN OXIDES

NO₂ and N₂O₄ have a chocolate brown color and characteristically have a strong odor in low concentrations. These gases are irritating to the lungs and may be fatal. Concentrations as low as 25-100 ppm can cause death. Any suspected exposure to heavy concentrations of these gases should be immediately reported to your manager.

AMMONIA

NH₃ is a colorless gas with a sharp irritating odor. It is readily soluble in water and is very irritating to the respiratory organs and to the skin. In concentrations of over three percent (3%) in the air, it is unbearable. Death from exposure to vapor is generally caused by constrictions of the throat or lung muscles. Usually the irritating vapor drives people to fresh air before serious injury is received. A Scott Air Pak should be used to protect breathing. High concentrations require a special suit to protect the rest of the body from burns.

HYDROFLUORIC ACID

HF is normally a colorless liquid, but when heated, or in a moist atmosphere it gives off white vapors resembling steam. It has a sharp, penetrating odor. It is very dangerous when in contact with any part of the body. Small amounts can cause painful, slow healing burns. Personnel exposed to HF acid in any quantity or concentration should be thoroughly familiar with the proper method of handling it and the appropriate first aid measures to be taken in case of contact.

CHLORINE

Chlorine is a clear amber liquid that evaporates rapidly to a greenish-yellow gas when exposed to the atmosphere. It has an irritating, suffocating odor. In concentrations above 40 ppm this material can produce bronchial constrictions with subsequent suffocation. Excessive concentrations of chlorine may also cause injury to the eyes. Avoid all contact with the liquid or vapor. Wear impervious protective clothing, gloves and an air pak when exposure to this chemical is possible. If chlorine is inhaled, physical activity should be kept to a minimum until medical attention is given.

PETROLEUM GASES

All hydrocarbon vapors are flammable and may form explosive mixtures with air. The light paraffins such as propane, butane, etc. are intoxicating in light concentration and may cause suffocation in heavier concentrations. Aromatics, such as benzene, cumene, toluene, xylene, etc., are poisonous;

even occasional small amounts may have a cumulative effect. Avoid breathing any hydrocarbon vapors.

EMERGENCY ACTION PLANS

It is our intent to have at least one (1) member of each crew or other working unit certified in first aid. Additionally, when a unit is working in a known or suspected area of hydrogen sulfide gas, one (1) member of the crew should be C.P.R. certified. Whenever possible, all crew members should be certified in both first aid and C.P.R.

When a medical emergency occurs, the following steps should be taken immediately.

At the Site

- Remove the injured employee from the point of danger, if necessary.
- Start immediate first aid.
- Notify your foreman and/or office by phone. Give information concerning who, where, what, why.
- If unable to get access to a phone, contact the clients safety department thru the clients truck radio.
- Continue first aid until additional qualified help arrives.

Office of Safety Coordinator

- Notify Safety Manager/Consultant and the injured employee's department manager.
- Call emergency numbers listed for the are in which the injured employee was working. (SEE "EMERGENCY NUMBERS" SECTION)
 - a. Ambulance, if needed
 - b. City Police or County Sheriff and/or Medical Examiner. (Medical Examiner only if Code 5 and the Notification should be made by the Safety Coordinator only).
 - c. Medical facility – hospital or clinic.
- Advise office management as needed.
- Keep telephone or radio traffic to a minimum until the emergency is resolved.

Safety Coordinator

1. Coordinate efforts of office and or department manager
2. Proceed to location as soon as possible.
3. Arrange for transport of injured person.
4. Arrange for medical attention
5. Notify all parties as needed.
6. Follow-up on all reports.
7. Follow-up on injured person.

WEATHER EMERGENCY

Most all operations are subject to severe weather conditions. High winds are one of the severe weather problems with which we are concerned. Hazards associated with strong gusty winds are as follows:

Blowing Dirt and Dust

- Goggles should be provided to every crew member.
- Work on exposed, elevated work areas should be suspended during high wind storms.

Icing Conditions

- Road conditions dictate the speed of the crew vehicle
- Due to extreme danger, all work on elevated word areas will be suspended during icing conditions.

Thunderstorms

- Storms should be watched very carefully. They can present hazards from winds, lightning, and hail.
- Storms of any great size should be reported to the office and to the department manager by phone, with the estimated position, size, speed, and direction of movements.
- Work should be suspended during this type of storm.

FIRE PROCEDURES

Basic Elements of Fire-Fundamentally, only three elements are necessary to produce an ordinary fire:

Fuel: Any one of hundreds of combustible or flammable materials such as paper and wood, oils, gasoline, natural gas, and methane.

Heat: Any one of numerous sources of ignition can provide sufficient heat to raise the temperature of the material to its ignition point.

Oxygen: Air provides the oxygen essential for burning. Since air is generally present, only combustible material plus a source of heat sufficient to raise the material to its ignition temperature is necessary to start a fire. Once started, the fire progresses rapidly and is limited only by the amount of combustible material or oxygen.

Classification of Fires – Four general classifications of fires have been adopted by the National Fire Protection Association, based upon the types of extinguishing material necessary to combat each.

- **Class A Fires:** Class A fires are those that occur in ordinary materials such as wood, paper, rags, rubbish. The quenching and cooling of water or of solutions containing large percentages of water are of first importance in extinguishing such fires. Special dry chemical agents (multipurpose dry chemicals) provide rapid knockdown of the flames and the formation of a coating that tends to retard further combustion.
- **Class B Fires:** Class B fires occur in the vapor-air mixture over the surface of flammable liquids such as gasoline, oil, grease, paints, and thinners. The limiting of air or introducing chemicals that have a combustion-inhibiting effect is the primary importance when extinguishing fires of this class. Solid streams of water are likely to spread this class of fire because the burning liquid floats on the water; hinder certain circumstances, water fog may prove effective. Generally regular dry chemicals, multipurpose dry chemicals, carbon dioxide, foam, and halogenated hydrocarbon agents are used for extinguishment.
- **Class C Fires:** Fires that occur in or near electrical equipment where non conducting extinguishing agents must be used are called Class C fires. Dry chemical carbon dioxide, compressed gas, and vaporizing liquid extinguishing agents are suitable. Foam or a stream of water should not be used because are good conductors and could expose the operator to a severe electrical shock hazard.
- **Class D Fires:** Fires that occur in combustible metals (such as magnesium, titanium, zirconium, lithium, and sodium) are classified as Class D fires.

Fire Watch Duties – Due to normal work activities conducted by Data Cell Systems, Inc. (i.e., welding, cutting, etc.) near flammable liquids, we are regularly required to have a fire-watch on site. The fire-watches only duty is to observe the job site for any evidence of fire and immediately extinguish it. The fire-watch is to be equipped with appropriate fire fighting equipment and is required to remain on site and on duty for at least 30 minutes after fire hazard activity is completed. If a fire-watch is required as part of a safe work permit he/she must have hands-on fire training.

Fire Fighting Equipment – All Data Cell Systems, Inc. vehicles will be equipped the following fire fighting equipment:

- a) Passenger Cars.....10 Pound Dry Chemical
- b) Trucks.....20 Pound Dry Chemical
- c) All Other Equipment....30 Pound Dry Chemical

COMPANY TRAINING

Data Cell Systems, Inc. believes employee awareness is the key to an effective safety program. As stated in the “Employee Responsibility” Section of this policy, an estimated 85% of all accidents are attributed to human error. The primary method to control this cause of accidents is to properly inform each and every employee of the proper equipment to use and procedures to follow while performing all aspects of his/her duties. Data Cell Systems, Inc. employees will receive appropriate training before he/she ever is allowed to conduct activities on a clients property, Training will be conducted on the following:

INITIAL TRAINING:

Every employee will receive general safety awareness training and company indoctrination before the employee is allowed to conduct any work. This training will be conducted by the Company Safety Coordinator and will cover the following subjects as they pertain to each employee’s job assignment:

- General Company Indoctrination
- Explanation of Company Chain of Command
- Review of the Company Code of Safe Practices
- Employee Responsibilities
- Procedures for Reporting Accidents/Injuries
- Required Work Attire
- Excavation/Trencing Requirements

Electrical Hazards
Fire Prevention
Motor Vehicle Policies
Hazard Communication Training
Respiratory Protective Equipment
Confined Space Entry Procedure
Drug Policy Familiarization
Hydrogen Sulfide
Monitoring Equipment Familiarization
Emergency Procedures
First Aid/CPR

Specialized “On-The-Job” training will be conducted at the job site by the individual Foreman before the employee is permitted to conduct work activity.

ANNUAL TRAINING:

Data Cell Systems, Inc. will conduct a one-day training program on an annual basis for all employees. This training will act as a refresher training course for all company procedures and policies. This training will be conducted by the Safety Coordinator (or delegated person) and will cover each subject listed above in detail.

DAILY TAILGATE AND WEEKLY SAFETY MEETINGS:

Data Cell Systems, Inc. has a schedule of safety meeting topics to supply each Foreman with support material. Each Foreman is responsible for seeing that all employees under his/her supervision attend daily tailgate and weekly safety meetings.

OTHER POLICIES AND PROCEDURES

Incorporated herein and made a part of the Code of Safe Practices of Data Cell Systems, Inc. are various other policies and procedures of the Company, all designed with the safety and security of its employees, customers, and the general public in mind.

The following additional policies and procedures should be referenced and followed as if they were fully included herein:

1. Drugs, Alcohol and other Prohibited Items Policy
2. Respiratory Protection Policy
3. Hazardous Substance Communication Program
4. Confined Space Entry Procedures

Each department manager has a complete set of the foregoing policies and procedures and will make them available for review by any employee, upon request and reasonable notice.

FALL PROTECTION PROGRAM

INTRODUCTION:

Data Cell Systems, Inc., has developed a fall protection program to help protect our employee's health and safety.

As a company, we intend to provide equipment designed to help reduce the possibility of injury in the event of a fall. We will also provide training to help recognize when a fall hazard exists, what equipment is best suited for each application, the limitations of this equipment and persons in the event of a fall. Each employee will be equipped and trained to perform a rescue if needed.

A total fall arrest system will be required 100% of the time the employee is walking or working on a surface that is 6 feet or more above the lower level.

If any of the equipment is subjected to a fall it will be immediately replaced with new equipment and the old equipment will be discarded.

The following list of equipment will be supplied and must meet or exceed all requirements of ANSI Z359.1 and be properly labeled stating the compliance with this standard and the date of manufacture and purchase.

FULL BODY HARNESS

A full body harness will be provided to each employee. Body belts will NOT be allowed at any time even though the OSHA reg will permit their use until January 1, 1998. All full body harnesses will be capable of supporting 5000 pounds and will have compatible D-rings for work positioning and a center back D-ring for the fall arrest system.

SHOCK ABSORBING LANYARDS AND CONNECTORS

Shock absorbing lanyards and snap hooks will be provided to each employee. Different styles and lengths will be available but at no time will any person be subjected to a fall in excess of 6 feet or a shock load in excess of 1800 pounds. The lanyards will be capable of supporting 5000 pounds after the deployment of the shock absorbing mechanism. The lanyards will never have knots tied anywhere on them and will be equipped with snap hooks (self closing self locking keepers only). Non locking keepers on snap hooks will not be permitted, although OSHA will permit their use until January 1, 1998.

ROPE GRABS AND LIFELINES

Rope grabs and life lines will also be provided when the job dictates their use instead of self retracting lifelines or clipping your shock absorbing lanyard directly to an anchorage strap. When rope grabs and life lines are used they must be compatible with the snap hooks and lanyards supplied. The rope grabs will be capable of supporting 5000 pounds and will be matched with the proper strength and size of lifeline is to be used with one 5/8 inch life line and DBI/SALA model #LS-1442 is to be used with only 3/4 inch life

line. All life lines will be capable of supporting 5000 pounds and will have no knots tied anywhere on the life line. (knots can reduce the life lines strength up to 50%).

SELF RETRACTING LIFELINES

Self retracting lifelines will be provided when the job dictates their use instead of rope grabs or clipping your shock absorbing lanyard directly to an anchorage strap. The SRL's will be capable of supporting 5000 pounds and will have an internal deceleration device built into the system to prevent shock exposures in excess of 900 pounds. Careful evaluation of the job site will determine if a cable SRL will expose the employee to a possible connection with electrical energy. A nylon web SRL will be used if there is electrical energy on or near the structure.

ANCHORAGE STRAPS

Anchorage straps with compatible D-rings will be supplied for the direct connection of the shock absorbing lanyards, or for attachment of the properly selected lifeline. These anchorage straps will be capable of supporting 5000 pounds and employees will be trained to connect these straps to secure points without sharp edges and be capable of supporting 5000 pounds per person.

At no time will two employees be connected to any of the above equipment at the same time. All employees must have separate fall arrest systems, and if more than one system is connected to the same anchorage point that point will be capable of supporting 5000 pounds per person, 10,000 pounds for two persons and so on.

TRAINING

All employees will be required to complete a thorough training program. This program will cover the ANSI Z359.1 criteria and an overview of 1926.500-503 for construction, and an overview of 1910.66 for fixed facilities. They will be trained to understand the proper care and use of each component of a fall arrest system, and the limitations of each piece of equipment. Each employee will be given a wallet card certifying the completion of this course.

Each piece of equipment will be supplied with a USER INSTRUCTION MANUAL from the manufacture. Every employee will be required to read each and every section of each instruction manual. Every employee will be given adequate time to read and understand this instruction manual. Foreman will provide training and will certify that each crew member has been trained. Each crewman will also sign the training certificate indicating their understanding of the equipment use.

The equipment manuals contain information regarding:

- * The proper application of the equipment
- * The System Requirements
- * System Operation and Usage
- * Training Requirements
- * Equipment Inspections
- * Maintenance

- * Specification and Performance Data
- * Detailed Inspection and Maintenance Log

Every employee will be responsible for the documentation of each piece of equipment assigned to them. They will be required to sign each user instruction manual and initial each section. The job foreman will also be required to sign every user instruction manual and a copy of the entire manual will be kept on file at the main office.

RESCUE

Every job site will be equipped with at least one rescue device designed to perform a rescue of an injured employee from any location of that job site. Each employee will be trained on the proper use and care of these rescue devices. A training video will be provided for this purposed. The rescue device will be supplied in a sealed bag and will not be used for work unless a rescue is necessary. A full and detailed accident report will be required whenever the seal is broken. At this time a training rescue will be performed to familiarize each person with this equipment.

If anyone has questions about the fall protection program contact the Safety Coordinator, who will monitor our plan to ensure that the policies are carried out and that the program is effective.

STATE AND FEDERAL POSTING REQUIREMENTS

We comply with all State and Federal labor regulations posting requirements including:

EMPLOYEE POLYGRAPH PROTECTION notification (29 USC Sec. 2001)

“Each employer shall post and maintaining such notice in conspicuous places on its premises where notices to employees are customarily posted” (29 USC Sec. 2003). Any employee who violates the Polygraph Protection Act may be assessed a civil penalty of up to \$10,000 (29 USC Sec. 200S).

FEDERAL MINIMUM WAGE NOTICE (29 USC Sec. 206)

Employers subject to the Fair Labor Standards Act must post a notice regarding the federal minimum wage in “conspicuous places in every establishment” where the affected employees can readily observe it on their way to or from work. (29 CFR Sec. 516.4) Failure to post the required notice is a federal crime (29 USC Sec. 215.216)

FAIR EMPLOYMENT PRACTICES INFORMATION (Govt. C Sec 12900-12996)

Every employer must post “in a conspicuous place or places on his premises” a notice, prepared by the Fair Employment and Housing Commission, setting forth excerpts from the Fair Employment and Housing Act (Govt C Sec. 12900-12996). An employers’ willfull failure to comply with the posting requirements is a misdemeanor (Govt C Sec. 12975).

FEDERAL OSHA NOTIFICATION REGARDING JOB SAFETY

(29 CFR Sec. 1903).

Each employer shall “post and keep posted a notice or notices informing employees of the protection and obligations provided for in the (Federal Occupational Safety and Health Act) 29 CFR Sec. 1903.15).

WORKER’S COMPENSATION NOTIFICATION (Labor Code Sec. 3550).

Every employer is required to post and maintain a notice informing employees that they should report all injuries to their employer. The notice should also state the current compensation carrier (Lab Code Sec. 3550). An employer that fails to post a required notice may be assessed a civil penalty of up to \$1,000 for each violation.

Data Cell Systems, Inc.

Safety Policy and Procedure Manual Acknowledgement Form

1. This certifies that I, _____, have received and read and understand the Data Cell Systems, Inc. Safety and Health Manual.
2. I understand that I must adhere to the safety policies and procedures presented in this Manual and that if I do not, it can result in my employment termination.
3. I further understand that it is my responsibility to report any violations of this safety policy to my Foreman or other senior managers at Data Cell Systems, Inc.

Employee Signature

Date