

Aquifer Drilling & Testing, Inc.

SAFETY AND HEALTH PROGRAM



Revised
August 2004

Aquifer Drilling & Testing, Inc.

Corporate Safety & Health Program

August 2004

H. L. Rexrode, Jr.
CHIEF EXECUTIVE OFFICER

William Poupis
Corporate Safety Officer

William Poupis/Steven Wolf
Field Managers

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Occupational Health and Safety Program

Corporate Policy Statement

The Occupational Safety and Health Act of 1970 clearly states our common goal of safe and healthful working conditions. The safety and health of our employees continues to be the first consideration in the operation of this business.

Safety and health in our business must be a part of every operation. Without question it is every employee's responsibility at all levels.

It is the intent of this company to comply with all laws. To do this we must constantly be aware of conditions in all work areas that can produce injuries. No employee is required to work at a job he or she knows is not safe or healthful. Your cooperation in detecting hazards and, in turn, controlling them is a condition of your employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct.

The personal safety and health of each employee of this company is of primary importance. The prevention of occupationally induced injuries and illnesses is of such consequence that it will be given precedence over operating productivity whenever necessary. To the greatest degree possible, management will provide all mechanical and physical facilities required for personal safety and health in keeping with the highest standards.

We will maintain a safety and health program conforming to the best management practices of organizations of this type. To be successful, such a program must embody the proper attitudes toward injury and illness prevention not only on the part of supervisors and employees, but also between each employee and his or her co-workers. Only through such a cooperative effort can a safety program in the best interest of all be established and preserved.

Our objective is a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing, the best experience of operations similar to ours. Our goal is nothing less than zero accidents and injuries.

H. L. Rexrode, Jr.
President and CEO
Aquifer Drilling & Testing, Inc.

Aquifer Drilling & Testing, Inc. (ADT)

Occupational Health and Safety Program

Health and Safety Guidelines

Date of Last Revision: August 12, 2004

Program Responsibility: The company Safety Officer is William Poupis. He is solely responsible for all managerial facets of this program and has full authority to make necessary decisions to ensure success of the program. Safety is also the responsibility of every employee of this company. The Safety Officer will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. This company has expressly authorized the Safety Officer to halt any operation of the company where there is danger of serious personal injury. This policy includes respiratory hazards. The Safety Officer will ensure that each employee receives a copy of this document and understands its content. The training and review of all ADT Policies takes place during the ADT annual OSHA safety and health training period. This period is completed during the month of August.

Program Content

The ADT safety and health program will include, but is not limited to development and maintenance of the following:

- 1. Company Health and Safety Program Guidelines.**
- 2. Written Programs.**
- 3. Safety Committee.**
- 4. Routine Safety and Health Inspections.**
- 5. Safety Meetings.**
- 6. Accident and Incident Reporting.**
- 7. Accident Investigation.**
- 8. Tank removal/Hydraulic Lift Installations.**
- 9. Record keeping Requirements.**
- 10. Disciplinary Actions for Willful Unsafe Acts.**

1. Company Health and Safety Program Guidelines. William Poupis will review and evaluate this document:

1.1 On an annual basis.

1.2 When changes occur to 29 and/or 40 CFR that prompt a revision.

1.3 When changes occur to any related regulatory document that prompts a revision of this document.

1.4 When facility operational changes occur that require a revision of this document.

2. Written Individual Programs. This company will maintain written individual procedures for the types of hazards/issues that our employees will or could potentially be exposed to. Each program will be reviewed/revised on an annual basis or as required by the respective governing OSHA/EPA Standards. Each program insofar as possible will be maintained as an independent program to avoid situations where it is unclear where responsibility for given issues belong. Effective implementation of these program's require support from all levels of management within this company. Each written program will be communicated to all personnel that are affected by it. Each will encompass the total workplace, regardless of number of workers employed or the number of work shifts. They will be designed to establish clear goals, and objectives. The following individual safety programs will be maintained.

Individual Safety Programs:

- 2.1 Department Safety Analysis
- 2.2 Job Hazard Analysis
- 2.3 Process Safety
- 2.4 Accident Investigation
- 2.5 Hazard Communication
- 2.6 Fire Prevention
- 2.7 Lock-Out/Tag-Out
- 2.8 Confined-Space
- 2.9 Occupational Ergonomics Program
- 2.10 Slings Safety
- 2.11 Cranes and Hoists
- 2.12 New and Rebuilt Equipment
- 2.13 Electrical Safety
- 2.14 Machine Guarding
- 2.15 First Aid/Injury Procedures
- 2.16 Power Tools Safety
- 2.17 Welding and Cutting safety
- 2.18 Compressed Gas Safety

- 2.19 Ladders and Stairs
 - 2.20 Working in Hot Conditions
 - 2.21 Working in Cold Conditions
 - 2.22 Slips, Trips and Falls
 - 2.23 Protective Clothing Selection Policy
 - 2.24 Protective Clothing/Equipment
 - 2.25 Head Protection
 - 2.26 Eye and Face Protection
 - 2.27 Hand Protection
 - 2.28 Skin Protection
 - 2.29 Foot Protection
 - 2.30 Hearing Conservation
 - 2.31 Bloodborne Pathogens
 - 2.32 Forklifts/Powered Industrial Trucks
 - 2.33 Hazardous Waste Op. and Emergency Response (HAZWOPER)
 - 2.34 Preparation for Workplace Emergencies
 - 2.35 Office Safety
 - 2.36 Process Safety
 - 2.37 Compressed Gas Safety
 - 2.38 Laboratory Safety
 - 2.39 Laboratory Chemical Hygiene Safety
 - 2.40
-

3. Safety Committee.

3.1 Composition. The ADT safety committee will be comprised of (3) members of management/supervision and hourly personnel. The make up of the committee will consist of the following:

Safety Committee

Title	Member
H. L. Rexrode, Jr.	President/General Manager
William Poupis	Corporate Safety Officer
Stephanie Feinstein	Officer Manager
Steven Wolf	Supervisory personnel
Michael Greenman	Employee Representative

3.2 Principal Responsibilities. The principal responsibilities of the ADT safety committee will be as follows:

3.2.1 Assemble on a bi-annual basis to conduct safety meetings.

3.2.2 Conduct and oversee departmental safety inspections.

3.2.3 Review accident/injury reports and discuss corrective actions.

3.2.4 Direct and monitor departmental training and safety meetings.

3.2.5 Discuss and report on unfinished business from previous meetings.

3.2.6 Discuss new business.

3.2.7 Maintain appropriate records of activities.

3.2.8 Require departments heads and the facility engineer to sit in on the committee meetings whenever deemed necessary.

EXAMPLE: If a major hazard exists or operational change is to be considered that is in a specific department, then the department head should be present. The Safety Officer should be present to address hazards to be corrected through engineering controls.

3.2.9 The Safety Officer will be present to make notations of the meeting and offer advice. He/she will track open safety items to conclusion. He/she will also act as chairman in the absence of the designated chairman or vice chairman.

3.3 Charter. Charter for the ADT Safety Committee. This safety committee will encourage safety awareness among all employees. It will be established to monitor safety performance, safety inspections, and aid the Safety Officer in administering the company safety program.

- To reduce injuries and save lives.
- To constantly be aware of conditions in all work areas that can produce injuries.
- To aid the company in complying with all laws pertaining to safety.
- To ensure that no employee is required to work at a job that is not safe or healthful.
- To place the personal safety and health of each employee of this company in a position of primary importance.

- To aid in the prevention of occupationally induced injuries and illnesses.
- To the greatest degree possible, aid management in providing all mechanical and physical facilities required for personal safety and health in keeping with the highest standards.
- To maintain a safety and health program conforming to the best management practices of organizations of this type.
- To establish a program that instills the proper attitudes toward injury and illness prevention not only on the part of supervisors and employees, but also between each employee and his or her co-workers.
- To ultimately achieve a safety program maintained in the best interest of all concerned.
- Employees are encouraged to report all safety and health issues in a timely fashion to their supervisor
- To inform all ADT employees of the ADT Safety and Health Information Center. The Center contains phone numbers for all Safety and Health organizations (*i.e.* OSHA) and the Employee Right-To- Know information.

4. Routine Safety and Health Inspections. Routine safety and health inspections of all company facilities shall be conducted semi-annually. The inspection will be conducted to discover through specific, methodical auditing, checking, or inspection procedures; conditions and work practices that lead to job accidents and industrial illnesses.

4.1 Inspection team composition. The company safety inspection team will be comprised of (2) members of management/supervision and hourly personnel. The recommended make up of the team will consist of the following:

Safety Inspection Team

Title	Member
William Poupis	Corporate Safety Officer
Steven Wolf	Field Supervisor
Michael Greenman	Employee Representative

4.2 Inspection Intervals. The safety officer will coordinate inspection dates and times with all assigned inspection team members. The team will conduct inspections on a quarterly basis.

4.3 Hazard priority classification system. Hazards will be rated according to the following rating system. Where it is unclear where a hazard should be rated the next higher priority classification will be assumed.

4.3.1 Priority 1 Hazard. The most serious type of unsafe condition or unsafe work practice that could cause loss of life, permanent disability, the loss of a body part (amputation or crippling injury), or extensive loss of structure, equipment, or material.

4.3.2 Priority 2 Hazard. Unsafe condition or work practice that could cause serious injury, industrial illness, or disruptive property damage.

4.3.3 Priority 3 Hazard. Unsafe condition or work practice that might cause a recordable injury or industrial illness or non-disruptive property damage.

4.3.4 Priority 4 Hazard. Minor condition, a housekeeping item or unsafe work practice infraction with little likelihood of injury or illness other than perhaps a first-aid case.

4.4 Inspection elements. The following inspection elements will be checked during safety inspections. Where an individualized safety program exists, the company standard practice instruction will be used as the basis for development of inspection criteria.

Element	Criteria
Floors	Condition, slip, trip, falls
Aisles	Marking, obstructions
Stairs	Condition, railings, obstructions
Ladders	Condition, Metal in electrical areas
Scaffolds	Condition, Nonskid, level, 2 feet wide
Lighting	Suitable Illumination for work
Exits	Obstructions, locked? lighted?
Ventilation	Adequate, fans guarded? maintained
Noise control	85db or less?, hearing protection?
Hand tools	Grounded, guarded, pressure switches
Machine tools	Guarded, stop buttons, training?
Chemicals	MSDS's, labels, storage, separated
Hoists/lifts	Load limits, unrestricted view, limits
Compressed gas	Storage, heat sources, labels, training
Guarding	Installed, over, under, around, between
Forklifts	Licenses, checklists, capacity, keys
Lockout/tagout	Procedures, training, devices, tags

Eye protection	Used, training, Z-87 rated protectors
Fire protection	Extinguishers, training, locations
First Aid	Kits, OSHA 300 logs, training
Waste disposal	Containers, labeled, separated
Building exterior	Defective overhangs, lighting
Building interior	Defective overhangs, lighting
Yards/roads	Obstructions, housekeeping, signs
Confined Spaces	Marked, training, ventilation, equipment
Elevators	Good repair, load rating, inspected
Offices	Floors, aisles, exits, ventilation
Power systems	Mechanical, hydraulic, electrical
Work practices	Unsafe work practices observed? (List)

4.5 Inspection report. The safety officer will develop a safety report based on the inspection items noted during the inspection. The following items will be accomplished:

4.5.1 The report will be distributed immediately to maintenance personnel responsible for correcting deficiencies noted during the inspection. Maintenance personnel will use the hazard classification system to prioritize deficiency correction.

4.5.2 The report will be distributed to all supervisors and key management personnel. Supervisors will brief the results to all employees under their control. Any employee requesting to be placed on the distribution list will be accommodated.

4.5.3 The safety officer will develop a statistical analysis of deficiencies noted to determine jobs/areas that have a high incidence of injury potential. These areas will be emphasized during inspections and meetings.

5. Safety Meetings. A well-ordered flow of information is essential to a good safety program. The company, through a program of safety meetings at all levels, intends to accomplish the goals of safety awareness, education, and participation.

5.1 Safety meeting outlines. The safety officer will maintain outlines serving various topics of importance to the safety of company employees. The outlines will be flexible. They will be intended to be adapted to the widest range of situations and groups. Supervisors can add the level of detail required to make the material completely relevant to his or employees.

5.2 Safety meeting schedules. Employees will be given safety briefings by their respective supervisors on a daily basis. Safety briefings will be given immediately:

5.2.1 upon initial job assignment or reassignment.

5.2.2 when operational changes to equipment or the job occurs.

5.2.3 when a co-worker in their department is injured.

5.2.4 when manufacturers provide safety related information pertaining to defects, use, etc., for equipment used by this company.

5.3 Departmental staff meetings. Safety will be included in the agenda of all staff meetings. The safety officer will keep department heads informed of safety performance developments in the area of accident prevention, and safety. Department heads may ask the safety officer to provide safety briefings as required.

5.4 Supervisor meetings. Safety will be included in the agenda of all routine supervisor meetings. The safety officer will keep department heads informed of safety performance developments in the area of accident prevention, and safety. Department heads will ensure the information is transmitted to supervisors for inclusion in meetings. Supervisors may ask the safety officer to provide safety briefings as required.

5.5 **Safety Training.** ADT has retained the services of Rapid Intervention Inc., a safety and health training firm to assist in our corporate safety & health program. The programs are documented and delivered in accordance with all applicable regulations. Rapid Intervention provides the training, manuals and certificates for the following programs:

- ADT Safety and Health Awareness Course
- Hazard Communication 1910.1200
- Personal Protective Equipment 1910.132
- SFA/CPR 1910.146
- Confined Space Entry 1910.146
- Respirator 1910.134
- General Construction Safety 1926
- Bloodborne Pathogens 1910.1030
- Haz Mat Transport DOT HM181/126f
- Lockout/Tagout 1910.146
- Hazardous Waste Operations & Emergency Response 1910.120

6. Accident and Incident Reporting. The ADT Hazard Report will be used by all employees to report potential or known hazards. The following procedures apply:

6.1 Person reporting hazard:

6.1.1 Notify department supervisor of the hazard.

6.1.2 Accomplish lock-out/tag-out if required on the machine.

6.1.3 fill out required sections of the hazard report.

6.1.4 Forward report immediately to the safety officer.

6.2 Supervisor:

6.2.1 Notify all affected workers of hazard.

6.2.2 Notify maintenance of hazard, if required.

6.2.3 Ensure hazard is properly marked and controlled.

6.2.4 Contact Safety Officer if needed.

7. Accident Investigation. Accident investigation is primarily a fact-finding procedure; the facts revealed are used to prevent recurrences of similar accidents. The focus of accident investigation will be to prevent future accidents and injuries to increase the safety and health of all our employees.

7.1 Immediate concerns.

7.1.1 Ensure any injured person receives proper care.

7.1.2 Ensure co-workers and personnel working with similar equipment or in similar jobs are aware of the situation. This is to ensure that procedural problems or defects in certain models of equipment do not exist.

7.1.3 Start the investigation promptly.

7.2 Investigation Team. The accident investigation team will be composed of the following:

Accident Investigation Team

Title	Member
William Poupis	Corporate Safety Officer
Stephanie Feinstein	Office Manager
Steven Wolf	Field Manager
Michael Greenman	Employee Representative

7.3 Accident Investigation Form. A standardized investigation form which details specific company requirements for investigation will be developed and used to gather data to determine causes and corrective actions. As a minimum the form will contain the following areas of concern.

7.3.1 Accident investigation form data.

- Injured employee's name
- Date and time of injury
- Occupation or task being performed when injured
- Shift and department
- Company ID number
- Employee's address
- Sex/age/DOB
- Social security number
- Length of service
- Length of time at specific job
- Time shift started
- Overtime length when injury occurred
- Physician's and hospital name (if transported)
- Type of injury
- Resulting fatalities
- Description and analysis of accident
- Complete accident tree
- Action taken to prevent recurrence and person
- Employee's statement
- Witnesses' statement
- Employer's statement
- Person completing form and date
- Person reviewing form and date
- _____
- _____
- _____
- _____

7.4 Reviewers. All injury investigation reports will be reviewed by a member of management responsible for the department/section involved to ensure pertinent information is transmitted to all concerned and remedial action taken. The AIR Team will review all Incidents and OSHA 200 log each February for prior year and institute changes. Employees are also encouraged to make recommendation on how to improve safety at the work-site.

Accident Investigation Review Team

Title	Member
H. L. Rexrode, Jr.	President
William Poupis	Corporate Safety Officer
Stephanie Feinstein	Office Manager
Steven Wolf	Field Supervisor

7.5 Accident investigation report. The final report will be numbered in the upper right hand corner, Page of Pages. The report will include but is not limited to the following.

7.5.1 Investigation form and pertinent data

7.5.2 Photographs/drawings/exhibits of scene

7.5.3 Narrative of accident

7.5.4 Sequence of events

7.5.5 Contributing information

7.5.6 Findings and recommendations of review team

7.5.7 Action items and completion dates

7.5.8 Responsible persons

7.5.9 Follow-up procedures to ensure completion

7.5.10 Distribution list

8. Hydraulic List Installations. The following safety rules and procedures are established by this company for Installation projects in accordance with the Safety Guidelines promulgated by the Occupational Safety and Health Administration. Managers and Supervisors are accountable for all items listed in this document.

Installations:

8.1 Upon notification of an Installation, we will dispatch a Supervisor to the site to assess the job requirements. A site survey will be performed in accordance with established industry guidelines.

8.2 As per job site specifications, Small, Medium or Large, barriers are built and work areas established. Every effort will be made to identify and rectify the job site hazards.

8.3 All employees will be properly trained prior to beginning a job. Each day, the job supervisor will inform the workers of the anticipated hazards of the days work via a toolbox safety meeting.

8.5 The job supervisor and/or Safety Officer will determine the appropriate PPE.

8.6 All employees will don proper Personal Protective Equipment based on the following OSHA criteria:

Respirator: N-95 Filter Face piece or Half Face Cartridge with HEPA filter

Gloves: Disposable rubber/latex, cotton or leather gloves

Goggles: ANSI approved goggles

Suits: Tyvek suit

Boots: Approved work boots with an ANZI 41-1991 rating

9. Record keeping requirements. This employer fully understands that companies with eleven (11) or more employees at any time during the calendar year immediately preceding the current calendar year must comply with the provisions of 29 CFR 1904. This section provides for record keeping and reporting by ADT covered under 29 CFR 1904 as necessary or appropriate for developing information regarding the causes and prevention of occupational accidents and illnesses, and for maintaining a program of collection, compilation, and analysis of occupational safety and health statistics both for this company and as part of the national system for analysis of occupational safety and health. Records shall be established on a calendar year basis.

9.1 This employer will report under 29 CFR 1904.8 concerning fatalities or multiple hospitalization accidents.

9.2 This employer will maintain a log of occupational injuries and illnesses under 29 CFR 1904.2 and to make reports under 29 CFR 1904.21 upon being notified in writing by the Bureau of Labor Statistics that the employer has been selected to participate in a statistical survey of occupational injuries and illnesses.

9.3 Log and summary of occupational injuries and illnesses. This employer shall:

9.3.1 maintain a log and summary of all recordable occupational injuries and illnesses by calendar year.

9.3.2 Enter each recordable injury and illness on the log and summary as early as practicable but no later than 6 working days after receiving information that a recordable injury or illness has occurred. For this purpose form OSHA No. 300 or an equivalent which is as readable and comprehensible to a person not familiar with it will be used. The log and summary shall be completed in the detail provided in the form and instructions on form OSHA No. 300.

9.3.3 If this employer elects to maintain the log of occupational injuries and illnesses at a place other than this establishment or by means of data-processing equipment, or both, it will meet the following criteria:

9.3.3.1 There will be available at the place where the log is maintained sufficient information to complete the log to a date within 6 working days after receiving information that a recordable case has occurred.

9.3.3.2 At each facility belong to this company, there will be available a copy of the log which reflects separately the injury and illness experience of that establishment complete and current to a date within 45 calendar days.

9.4 Supplementary record. In addition to the log of occupational injuries and illnesses (OSHA 301) this employer shall have available for inspection at each of our facilities within 6 working days after receiving information that a recordable case has occurred, a supplementary record for each occupational injury or illness for that establishment. The record shall be completed in the detail prescribed in the instructions accompanying Occupational Safety and Health Administration Form OSHA No. 301. Workmen's compensation, insurance, or other reports are acceptable alternative records if they contain the information required by Form OSHA No. 301 (according to OSHA). If no acceptable alternative record is maintained for other purposes, Form OSHA No. 301 shall be used or the necessary information will be otherwise maintained.

9.5 Annual summary. This employer shall post an annual summary of occupational injuries and illnesses for each facility under our control. This summary shall consist of a copy of the year's totals from the form OSHA No. 300 and the following information from that form:

9.5.1 Calendar year covered.

9.5.2 Company Name and establishment address.

9.5.3 Certification signature, title, and date.

9.5.4 A form OSHA No. 300 shall be used in presenting the summary. If no injuries or illnesses occurred in the year, zeros will be entered on the totals line, and the form posted.

9.5.5 The summary shall be completed by February 1 of each calendar year. This company, or the officer or employee of the employer who supervises the preparation of the log and summary of occupational injuries and illnesses, shall certify that the annual summary of occupational injuries and illnesses is true and complete. The certification shall be accomplished by affixing the signature of the employer, or the officer or employer who supervises the preparation of the annual summary of occupational injuries and illnesses, at the bottom of the last page of the log and summary or by appending a separate statement to the log and summary certifying that the summary is true and complete.

9.5.6 This Each employer shall post a copy of the establishment's summary in each facility in the same manner required under 29 CFR 1903.2 The summary covering the previous calendar year shall be posted no later than February 1, and shall remain in place until April 30th. For employees who do not primarily report or work at a fixed site belonging to this company, or who do not report to any fixed site on a regular basis, we shall satisfy this posting requirement by presenting or mailing a copy of the summary during the month of February of the following year to each such employee who receives pay during that month. (NOTE: For multi-establishment employers where operations have closed down in some establishments during the calendar year, it will not be necessary to post summaries for those establishments).

9.6 Records retention. Records provided for in 29 CFR 1904.2, 1904.4, and 1904.5 (including form OSHA No. 300 and its predecessor forms OSHA No. 100 and OSHA No. 102) will be retained for 5 years following the end of the year to which they relate.

9.7 Access to records. This employer shall provide, upon request, records provided for in 29 CFR 1904.2, 1904.4, and 1904.5, for inspection and copying by any representative of the Secretary of Labor for the purpose of carrying out the provisions of the OSHA act, and by representatives of the Secretary of Health, Education, and Welfare, or by any representative of a State accorded jurisdiction for occupational safety and health inspections or for statistical compilation.

9.7.1 The log and summary of all recordable occupational injuries and illnesses (OSHA No. 300) will, upon request, be made available to any employee, former employee, and to their representatives for examination and copying in a reasonable manner and at reasonable times. The employee, former employee, and their representatives shall have access to the log for any establishment in which the employee is or has been employed.

9.8 Reporting of fatality or multiple hospitalization accidents. Within 48 hours after the occurrence of an employment accident which is fatal to one or more employees or which results in hospitalization of five or more employees, this employer shall report the accident either orally or in writing to the nearest office of the Area Director of the Occupational Safety and Health Administration, U.S. Department of Labor. The reporting may be by telephone or telegraph. The report shall relate the circumstances of the accident, the number of fatalities, and the extent of any injuries. It is understood that the Area Director may require such additional reports, in writing or otherwise, as he deems necessary, concerning the accident.

9.9 Change of ownership. Should this company change ownership, the company shall preserve those records, if any, of the prior ownership which are required to be kept.

9.10 Petitions for recordkeeping exceptions. Should this wish to maintain records in a manner different from that required the company will submit a petition containing the information specified by the Regional Commissioner of the Bureau of Labor Statistics in our region.

9.11 Employees not in fixed establishments. Record requirements for company employees engaged in physically dispersed operations such as occur in construction, installation, repair or service activities who do not report to any fixed company establishment on a regular basis but are subject to common supervision will be satisfied by:

9.11.1 Maintaining the required records for each operation or group of operations which is subject to common supervision (field superintendent, field supervisor, etc.) in an established central place. The Safety Officer shall secure these items

9.11.2 Having the address and telephone number of ADT available at each worksite.

9.11.3 Having personnel available at ADT during normal business hours to provide information from the records maintained there by telephone and by mail.

9.12 Statistical program. This employer will comply with all requirements to maintain, provide, and use statistical summaries. Upon receipt of an Occupational Injuries and Illnesses Survey Form, this employer shall promptly complete the form in accordance with the instructions contained therein, and return it in accordance with the instructions.

The following section on disciplinary actions is a typical procedural method for managing employees who willfully commit unsafe acts that place themselves or other in danger.

10. Disciplinary Actions for Willful Unsafe Acts. Employee safety is paramount at this company. The willful commitment of an unsafe act cannot be condoned. Employees who willfully jeopardize their own or coworkers safety will be disciplined. The type of discipline can range from a verbal warning to dismissal. The company safety officer, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction. Disciplinary action other than a release from shift without pay must be reviewed by Craig Santry.

10.1 Forms of discipline.

10.1.1 Verbal warning. The company safety officer, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction. A second verbal warning in the same shift will be grounds for release from the current work shift without pay. The immediate supervisor will be consulted in all cases and will make the determination for release.

10.1.2 Written warning. A written warning will be issued automatically for a second verbal warning for an unsafe act. The written warning will become part of the employees permanent personnel record.

10.1.3 Retraining. It must be considered that the possibility exists that lack of proper training may be a cause of the unsafe act. Supervisors will review the need for employee remedial training in their job skill code to enable them to better accomplish their jobs.

10.1.4 Dismissal hearing. The employee concerned will be notified of his or her rights in writing at least 5 days in advance of the hearing. The employee will be told in writing of the cut-off date for submission of a rebuttal. The option of dismissal will be reviewed by H. L. Rexrode, Jr. at a dismissal hearing. The immediate supervisor will be consulted to determine if a lesser form of discipline is warranted. The employees' rebuttal (if provided) will be considered along with the severity of the act, the supervisors recommendation and any other supporting information provided at the time of the time of the hearing.

10.2 Unsafe act priority classification system. Unsafe acts will be rated according to the following rating system. Where it is unclear where an unsafe act should be rated the next higher priority classification will be assumed. While any unsafe act is serious, this classification system will be used to gage the severity of an unsafe act for use in determining the appropriate level of disciplinary action.

10.2.1 Priority 1 Unsafe Act. The most serious type of unsafe act or unsafe work practice that could cause loss of life, permanent disability, the loss of a body part (amputation or crippling injury), or extensive loss of structure, equipment, or material.

10.2.2 Priority 2 Unsafe Act. Unsafe act or work practice that could cause serious injury, industrial illness, or disruptive property damage.

10.2.3 Priority 3 Unsafe Act. Unsafe act or work practice that might cause a recordable injury or industrial illness or non disruptive property damage.

10.2.4 Priority 4 Unsafe Act. Minor unsafe work practice infraction with little likelihood of injury or illness.

STANDARD PRACTICE INSTRUCTION

DATE: December 12, 2003

SUBJECT: Respiratory Protection Program

REGULATORY STATUTE: OSHA - 29 CFR 1910.134

BASIS: About 32 million workers are potentially exposed to one or more chemical hazards on a daily basis. There are an estimated 575,000 existing chemical products, and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employer. The OSHA Respiratory Protection Standard establishes uniform requirements to make sure that the respiratory hazards of all U.S. workplaces are evaluated, and that engineering controls, and work practice controls are implemented, and where not feasible, a respiratory protection program instituted.

GENERAL: ADT will ensure that respiratory hazards within our facility are evaluated, and that information concerning these hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating the potential respiratory hazards, communicating information concerning these hazards, and establishing appropriate engineering, work practice, or respiratory protective measures for employees.

RESPONSIBILITY: The company Safety Officer is William Poupis. He is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Safety Officer will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. This company has expressly authorized the Safety Officer to halt any operation of the company where there is danger of serious personal injury. This policy includes respiratory hazards.

Contents of the ADT Respiratory Protection Program

- 1. Written Program.**
- 2. Employer and Employee Responsibility.**
- 3. Policy Statement.**
- 4. Respiratory Selection Policy.**
- 5. Use of Respirators.**
- 6. Inspection, Maintenance, and Care of Respirators.**
- 7. Training Program.**
- 8. Respirator Decision Logic.**
- 9. Respirator Fit Testing.**
- 10. Respirator Inspection Record.**

ADT Respiratory Protection Program

1. Written program. ADT will review and evaluate this standard practice instruction governing the selection and use of respirators on an annual basis, or when changes occur to 29 CFR 1910.134, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation of this program requires support from all levels of management within this company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives.

2. Employer and Employee Responsibility.

2.1 Employer's Responsibility.

2.1.1 Respirators shall be provided by this employer when they are necessary to protect employee health.

2.1.2 The respirator provided shall be suitable for the intended use.

2.1.3 The employer shall be responsible for establishing and maintaining a respiratory program whenever respirators are used. A program administrator shall be appointed to oversee the program. The program administrator for ADT is William Poupis.

2.2 Employee's Responsibility.

2.2.1 The employee shall use the respiratory protection in accordance with instructions and training received or contracted by ADT.

2.2.2 The employee shall guard against damage to the respirator, and immediately replace suspect respirators.

2.2.3 The employee shall report any trouble with or malfunction of the respirator to his/her supervisor.

3. Policy Statement.

3.1 Engineering controls. To control and or minimize the threat of occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective of this program shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used.

3.2 Respirators. Respirators shall be provided by this employer when such equipment is necessary to protect the health of the employee. This employer shall:

3.2.1 Provide the respirators which are applicable and suitable for the purpose intended.

3.2.2 Be responsible for the establishment and maintenance of a written respiratory protective program which shall include the requirements outlined in 29 CFR 1910.134.

3.3 The employee shall use the provided respiratory protection in accordance with instructions and training received.

3.4 Respirators shall be selected on the basis of hazards to which the worker is exposed.

3.5 The user shall be instructed and trained in the proper use of respirators and their limitations.

3.6 Respirators shall be regularly cleaned and disinfected. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use.

3.7 Respirators shall be stored in a convenient, clean, and sanitary location.

3.8 Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use such as self-contained devices shall be thoroughly inspected at least once a month and after each use.

3.9 Appropriate surveillance of work area conditions and degree of employee exposure or stress shall be maintained.

3.10 There shall be regular inspection and evaluation to determine the continued effectiveness of the program.

3.11 Employees will not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. A physician shall determine what health and physical conditions are pertinent. The respirator user's medical status will be reviewed on a(n) annual basis. OSHA says "periodically".

3.12 NIOSH approved or accepted respirators shall be used when they are available. The respirator furnished shall provide adequate respiratory protection against the particular hazard for which it is designed.

4. Respiratory Selection Policy. Selection of respirators shall be made according to the specific hazard involved 29 CFR 1910.1000 and will be selected in accordance with the manufacturer's instructions or other related requirements (OSHA or ANSI standards, NIOSH, etc.).

4.1 Air quality. Compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration shall be of high purity.

4.1.1 Oxygen shall meet the requirements of the United States Pharmacopoeia for medical or breathing oxygen.

4.1.2 Breathing air shall meet at least the requirements of the specification for Grade D breathing air as described in Compressed Gas Association Commodity Specification G-7.1-1966.

4.1.3 Compressed oxygen shall not be used in supplied-air respirators or in open circuit self-contained breathing apparatus that have previously used compressed air. Oxygen must never be used with air line respirators. Breathing air may be supplied to respirators from cylinders or air compressors.

4.1.3.1 Cylinders shall be tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 178).

4.2 Supplied Air. Compressors purchased by this company for supplying air shall be equipped with the necessary safety and standby devices. A breathing-air type compressor shall be used. The type compressor used shall be constructed and situated so as to avoid entry of contaminated air into the system and suitable in-line air purifying sorbent beds and filters installed to further assure breathing air quality. A receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in event of compressor failure, and alarms to indicate compressor failure and overheating shall be installed in the system. If an oil-lubricated compressor is used, it shall have a high-temperature or carbon monoxide alarm, or both. If only a high-temperature alarm is installed in the system, the air from the compressor shall be frequently tested for carbon monoxide to ensure that levels are below the exposure limit for carbon monoxide.

4.2.1 Air line couplings used shall be incompatible with outlets for other gas systems to prevent inadvertent servicing of air line respirators with nonrespirable gases or oxygen.

4.2.2 Breathing gas containers shall be properly marked and stored in accordance with 29 CFR 1910.101.

5. Use of Respirators.

5.1 This document will specify standard procedures for respirator use. These will include all information and guidance necessary for their proper selection, use, and care. Possible emergency and routine uses of respirators will be where possible anticipated and planned for.

5.2 The correct respirator shall be specified for each job. The respirator type will be specified in the work procedures by the Safety Officer who supervises the respiratory protective program. The individual issuing them shall be adequately instructed to insure that the correct respirator is issued.

5.3 Dangerous atmospheres. Written procedures/checklists for specific routine tasks/jobs shall be prepared covering safe use of respirators in dangerous atmospheres that might be encountered in normal operations or in emergencies. Personnel shall be made familiar with these procedures and the available respirators.

5.3.1 In areas where the wearer, with failure of the respirator, could be overcome by a toxic or oxygen-deficient atmosphere, at least one additional person shall be present. Communications (visual, voice, or signal line) shall be maintained between both or all individuals present. Planning shall be such that one individual will be unaffected by any likely incident and have the proper rescue equipment to be able to assist the other(s) in case of emergency.

5.3.2 When a self-contained breathing apparatus or hose masks with blowers are used in atmospheres immediately dangerous to life or health (IDLH), standby personnel must be present with suitable rescue equipment.

5.3.3 Employees using air line respirators in atmospheres immediately hazardous to life or health (IDLH) shall be equipped with safety harnesses and safety lines for lifting or removing persons from hazardous atmospheres or other and equivalent provisions for the rescue of persons from hazardous atmospheres shall be used. A standby personnel with suitable self-contained breathing apparatus (SCBA) shall be at the nearest fresh air base for emergency rescue.

5.4 Respirator Training. For safe use of any respirator, it is essential that our employees be properly instructed in its selection, use, and maintenance. Both supervisors and workers shall be so instructed by Rapid Intervention Inc.. Training shall provide employees the opportunity to handle the respirator, have it fitted properly, test its face-piece seal, wear it in normal air for a long familiarity period, and, finally, to wear it in a test atmosphere.

5.5 Fit instructions. Every respirator wearer shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to

determine if it fits properly. Respirators shall not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the facepiece, or temple pieces on glasses. Also, the absence of one or both dentures can seriously affect the fit of a facepiece.

5.6 Fit Evaluation (wearer). The facepiece fit shall be checked by the wearer each time he/she puts on the respirator. This will be done by following the manufacturer's facepiece fitting instructions. This will be done in accordance with the manufacturer's facepiece fitting instructions.

5.7 Fit Evaluation (company). Periodic checks of employees while wearing respirators will be accomplished by supervision to assure proper protection. This will be done in accordance with the manufacturer's facepiece fitting instructions.

5.8 Hair/apparel. If hair growth or apparel interfere with a satisfactory fit, then they shall be altered or removed so as to eliminate interference and allow a satisfactory fit. If a satisfactory fit is still not attained, the employee must use a positive-pressure respirator such as powered air-purifying respirators, supplied air respirator, or self-contained breathing apparatus.

5.9 Corrective vision requirements (full-face respirators). Full-face respirators having provisions for optical inserts will be reviewed for use this company. These inserts when used will be used according to the manufacturers specification. When employees must wear optical inserts as part of the facepiece, the facepiece and lenses shall be fitted by qualified individuals to provide good vision, comfort, and a gas-tight seal. This company will provide corrective lens's for respirators based on optometry recommendations from an optometrist.

5.9.1 Conventional eye glasses. Conventional eye glasses will not be used with full-face respirators. A proper seal cannot be established if the temple bars of eye glasses extend through the sealing edge of the full facepiece.

5.9.2 Contact lenses. Contact lenses will not be used with full-face respirators. Wearing of contact lenses in contaminated atmospheres with a respirator shall not be allowed.

5.9.3 If corrective spectacles or goggles are required, they shall be worn so as not to affect the fit of the facepiece. Proper selection of equipment will minimize or avoid this problem.

6. Inspection, Maintenance, and care of respiratory equipment. Equipment shall be properly maintained to retain its original state of effectiveness.

6.1 Respirator inspection shall include but is not limited to the following:

6.1.1 A check of the tightness of connections.

6.1.2 Condition of the facepiece, headbands, valves, connecting tube, and canisters.

6.1.3 Inspection of the Rubber or elastomer parts for pliability and signs of deterioration. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible and prevent them from taking a set during storage.

6.2 Specific procedures for disassembly, cleaning and maintenance of respirators used by this company will be done according the manufacturers written instructions.

6.3 Random inspections. Respiratory protection is no better than the respirator in use, even though it may be worn conscientiously. Frequent random inspections shall be conducted to assure that respirators are properly selected, used, cleaned, and maintained. The respirator manufacturers inspection criteria will be used as the basis for the inspections. The following personnel are qualified to perform respirator inspections.

<u>Qualified Inspectors</u>	<u>Duty Title</u>	<u>Date Qualified</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Inspection records will be maintained in the Safety Officer office.

6.4 Emergency use respirators. All respirators shall be inspected routinely before and after each use. A respirator that is not routinely used but is kept ready for emergency use shall be inspected after each use and at least **monthly** to assure that it is in satisfactory working condition. The respirator manufacturers inspection criteria will be used as the basis for the inspections. A record shall be kept of inspection dates and findings for respirators maintained for emergency use. Respirators maintained for emergency use shall be cleaned and disinfected after each use.

6.5 Routine use respirators. All routine use respirators shall be inspected routinely before and after each use. The respirator manufacturers inspection criteria will be used as the basis for the inspection. Routinely used respirators shall be collected, cleaned, and disinfected as frequently as necessary to insure that proper protection is provided for the wearer.

6.6 SCBA inspections. Self-contained breathing apparatus (SCBA) shall be inspected **monthly**. Air and oxygen cylinders shall be fully charged according to the manufacturer's instructions. It shall be determined that the regulator and warning devices function properly.

6.7 Replacement or repairs. Replacement or repairs shall be done only by the Safety Officer with parts designed for the respirator. No attempt shall be made to replace components or to make adjustment or repairs beyond the manufacturer's recommendations. Reducing or admission valves or regulators shall be returned to the manufacturer or to a trained technician for adjustment or repair.

6.8 Storage requirements. After inspection, cleaning, and necessary repair, respiratory protection equipment shall be carefully stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators should be packed or stored so that the facepiece and exhalation valve will rest in a normal position and function will not be impaired by the elastomer setting in an abnormal position.

6.8.1 Emergency use respirators. Respirators placed at stations and work areas for emergency use should be quickly accessible at all times and will be stored in compartments built for the purpose. The compartments will be clearly marked. Instructions for proper storage of emergency respirators, such as gas masks and self-contained breathing apparatus, are found in "use and care" instructions usually mounted inside the carrying case lid.

6.8.2 Routine use respirators. Routinely used respirators, such as dust respirators, may be placed in plastic bags. Respirators having removable cartridges with imbedded compounds that could evaporate into a sealed bag should be removed so as not to permeate into the rubber parts of the respirator. Respirators should not be stored in such places as lockers or tool boxes unless they are in carrying cases or cartons.

6.9 Identification of chemical cartridges. The primary means of identifying a chemical cartridge is by means of labels. The secondary means is by a color code. All cartridges purchased or used by this company will be properly labeled and or colored coded in accordance with 29 CFR 1910.134 before they are placed in service. The labels and colors will be properly maintained at all times until disposal. Cartridges having labels and colors not identifiable will be properly disposed of. To determine the type cartridge:

6.9.1 Determine the following from the cartridge:

6.9.1.1 Type of canister. Canister used for "X" contaminant or Type N Gas Mask Canister.

6.9.1.2 "For respiratory protection in atmospheres containing not more than "X" percent by volume of "X" (Name of atmospheric contaminant).

6.9.1.3 Radionuclides. Canisters having a special high efficiency filter for protection against radionuclides and other highly toxic particulates will have a label with a statement of the type and degree of protection afforded by the filter. The label will be affixed to the neck end of, or to the gray stripe which is around and near the top of, the canister. The degree of protection shall be marked as the percent of penetration of the canister by a 0.3 micron-diameter dioctyl phthalate (DOP) smoke at a flow rate of 85 liters per minute.

6.9.1.4 Oxygen warning. Employees must be fully aware of the label warning that states that cartridge respirators should be used only in atmospheres containing sufficient oxygen to support life (at least 16 percent by volume), since cartridges are only designed to neutralize or remove contaminants from the air.

6.9.1.5 Color coding. Each cartridge is painted a distinctive color or combination of colors indicated in Table I-1. All colors used are of such a color that they are clearly identifiable by the user and clearly distinguishable from one another. The color coating offers a high degree of resistance to chipping, scaling, peeling, blistering, fading, and the effects of the ordinary atmospheres to which they may be exposed under normal conditions of storage and use.

Table I-1 from 29 CFR 1910.134

<u>Atmospheric contaminants</u>	<u>Colors assigned</u>
Acid gases	White.
Hydrocyanic acid gas	White with 1/2 inch green stripe completely around the canister near the bottom.
Chlorine gas	White with 1/2 inch yellow stripe completely around the canister near the bottom.
Organic vapors	Black.
Ammonia gas	Green.
Acid gases and ammonia gas	Green with 1/2 inch white stripe completely around the canister near the bottom.
Carbon monoxide	Blue.
Acid gases and organic vapors	Yellow.
Hydrocyanic acid gas and chloropicrin vapor	Yellow with 1/2 inch blue strip completely around the canister near the bottom.
Acid gases, organic vapors, and ammonia gases	Brown.
Radioactive materials, excepting tritium and noble gases	Purple (Magenta).
Particulates (dusts, fumes, mists, fogs, or smokes) in combination with any of the gases or vapors	Canister color for contaminant as designated above, with 1/2 inch gray stripe completely around the canister near the top.

All of the above atmospheric
contaminants

Red with 1/2 inch gray stripe completely around the
canister near the top.

Note: Gray is not assigned as the main color for a canister designed to remove acids or vapors.

Note: Orange is used as a complete body, or stripe color to represent gases not included in this table. The user will need to refer to the canister label to determine the degree of protection the canister will afford.

7. Respiratory Protection Training Program. This company shall develop a standardized training format to meet the requirement for a respiratory protection training program.

7.1 Training shall be provided to each affected employee:

7.1.1 Before the employee is first assigned duties that require respiratory protection.

7.1.2 Before there is a change in assigned duties.

7.1.3 Whenever there is a change in operations that present a hazard for which an employee has not previously been trained.

7.1.4 Whenever this employer has reason to believe that there are deviations from established respiratory procedures required by this instruction or inadequacies in the employee's knowledge or use of these procedures.

7.2 The training shall establish employee proficiency in the duties required by this instruction and shall introduce new or revised procedures, as necessary, for compliance with this instruction or when future revisions occur.

7.3 This employer shall certify that the training required by this section has been accomplished. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

8. Respirator Decision Logic.

8.1 Where a specific OSHA standard exists. Each task/job having the potential for respiratory hazards will be evaluated to determine worker protection requirement. The specific OSHA standard will be consulted to determine delineated respiratory requirements. The standards are listed in the "Z" tables to 29 CFR 1910.1000-1101.

8.2 Where a specific OSHA standard does not exist. The NIOSH respirator decision logic table from the "NIOSH guide to Industrial Respiratory Protection", Publication No. 87-116 (or

subsequent versions) will be used. After all criteria have been identified and evaluated and after the requirements and restrictions of the respiratory protection program have been met, the class of respirators that should provide adequate respiratory protection will be determined.

9. Respirator Fit Testing. This employer shall ensure that the respirator issued to the employee exhibits the least possible facepiece leakage and that the respirator is fitted properly. For each employee wearing negative pressure respirators, this employer shall perform (or have performed) either quantitative or qualitative face fit tests at the time of initial fitting and at least every six months thereafter. The qualitative fit tests may be used only for testing the fit of half mask respirators.

9.1 Half-mask respirators. This employer shall perform (or have performed) qualitative fit test protocols in accordance with the specific standard listed in the "Z" tables to 29 CFR 1910.1000-1101. Where a specific OSHA standard protocol does not exist. The "NIOSH guide to Industrial Respiratory Protection", Publication No. 87-116 (or subsequent versions) will be used.

9.2 Minimum fit factor. Employees shall not be permitted to wear a half mask or full facepiece mask if a minimum fit factor of 100 or 1,000, respectively, cannot be obtained.

9.3 Hair. Fit testing shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface.

9.4 Respiratory difficulty during tests. If an employee exhibits difficulty in breathing during the tests, she or he shall be referred to a physician trained in respiratory diseases or pulmonary medicine to determine whether the test subject can wear a respirator while performing her or his duties.

9.5 Respirator use determination. The test subject shall be given the opportunity to wear the assigned respirator for one week. If the respirator does not provide a satisfactory fit during actual use, the test subject may request another fit test which shall be performed immediately.

9.6 Respirator fit factor card. A respirator fit factor card shall be issued to the test subject with the following information, as a minimum:

9.6.1 Name.

9.6.2 Date of fit test.

9.6.3 Protection factors obtained through each manufacturer, model and approval number of respirator tested.

9.6.4 Name and signature of the person that conducted the test.

9.7 Filter replacement. Filters used for qualitative or quantitative fit testing shall be replaced weekly, whenever increased breathing resistance is encountered, or when the test agent has altered the integrity of the filter media. Organic vapor cartridges/canisters shall be replaced daily or sooner if there is any indication of breakthrough by the test agent.

9.8 Quantitative fit test, Re-test requirements. Because the sealing of the respirator may be affected, quantitative fit testing shall be repeated immediately when the test subject has a:

9.8.1 Weight change of 20 pounds or more.

9.8.2 Significant facial scarring in the area of the facepiece seal.

9.8.3 Significant dental changes; i.e., multiple extractions without prosthesis, or acquiring dentures.

9.8.4 Reconstructive or cosmetic surgery.

9.8.5 Any other condition that may interfere with facepiece sealing.

9.9 Fit test Recordkeeping requirements. A summary of all test results shall be maintained for 3 years. The summary shall as minimum include:

9.9.1 Name of test subject.

9.9.2 Date of testing.

9.9.3 Name of the test conductor.

9.9.4 Fit factors obtained from every respirator tested (indicate manufacturer, model, size and approval number).

10. Respirator Inspection Record. (See top of next page.)

RESPIRATOR INSPECTION RECORD

1. OWNER (if individually issued): _____

2. TYPE: _____ 3. NO. _____

4. DEFECTS FOUND:

A. Facepiece: _____

B. Inhalation Valve: _____

C. Exhalation Valve Assembly: _____

D. Headbands: _____

E. Cartridge Holder: _____

F. Cartridge/Canister: _____

G. Filter: _____

H. Harness Assembly: _____

I. Hose Assembly: _____

J. Speaking Diaphragm: _____

K. Gaskets: _____

L. Connection: _____

M. Other Defects:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

6. COMMENTS: _____

7. INSPECTOR'S NAME/TITLE: _____

8. SIGNATURE: _____ 9. DATE: _____

Permit Required Confined Space Entry Program

DATE: December, 12 2003

SUBJECT: Permit Required Confined Space Entry Program (General Industry)

REGULATORY STATUTE: OSHA - 29 CFR 1910.146

BASIS: Over 1 1/2 million workers enter confined spaces on an annual basis. Serious injury or death in a confined space can be the result of asphyxiation, engulfment, electric shock, falls, and heat stress. The Occupational Safety and health Administration (OSHA) estimates that 85 percent of these accidents can be prevented if proper safety precautions at job sites are initiated. This poses a serious problem for exposed workers and their employer. The OSHA Confined Space Standard establishes uniform requirements to ensure that the hazards of confined spaces in U.S. workplaces are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

GENERAL: ADT will ensure that all potential confined spaces within our facility(s) are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential confined spaces, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees and contractors.

RESPONSIBILITY: This plan has been designed solely for ADT Installations. William Poupis is designated Safety Officer for the duration of this project. He is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Safety Officer is the sole person authorized to amend these instructions and is authorized to halt any operation of the company or contractor where there is danger of serious personal injury. This policy includes respiratory hazards.

Contents of the ADT Installations Confined Space Program

- 1. Written Program.**
- 2. General Requirements.**
- 3. Permit-Required Confined Space Program.**
- 4. Permit System.**
- 5. Entry Permit.**
- 6. Training.**
- 7. Duties of Authorized Entrants.**
- 8. Duties of Authorized Attendants.**
- 9. Duties of Entry Supervisors.**
- 10. Rescue and Emergency Services.**
- 11. Procedures for Atmospheric Testing.**
- 12. Format for ADT Confined Space Permit.**

ADT Confined Space Entry Program

1. Written program. ADT will review and evaluate this standard practice instruction on an annual basis, or when changes occur to 29 CFR 1910.146, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Additionally, This company will review the permit-required confined space program, using the canceled permits retained within 1 year after each entry and revise the program as necessary, to ensure that employees participating in entry operations are protected from permit space hazards.

2. General requirements. ADT will establish confined space operational procedures through the use of this document.

2.1 After facility evaluation, spaces that meet the following criteria will be designated as a confined space:

2.1.1 It is large enough and so configured that an employee can bodily enter and perform assigned work.

2.1.2 Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.)

2.1.3 Is not designed for continuous employee occupancy.

2.1.4 Contains or has a potential to contain a hazardous atmosphere.

2.1.5 Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.

2.1.6 Contains any other recognized serious safety or health hazard.

2.2 Facility Evaluation. This employer shall evaluate our facility(s) to determine if any spaces meet the criteria for designation as a confined space. The decision flow chart in Appendix A to 29 CFR 1910.146 will be used to facilitate compliance with this requirement.

2.3 Confined Space Identification.

2.3.1 Permit-required confined spaces. Those spaces meeting the criteria delineated in this section and having a known potential to contain hazardous atmospheres will be designated as permit-required confined spaces. All spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. This employer shall inform exposed employees, by posting danger signs, conducting awareness training, or by any other equally effective means, of the existence and location of and the danger posed by the permit

confined spaces. A sign reading "DANGER PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER" or similar language will be used to satisfy the requirement for a sign.

2.3.2 Non-permit confined spaces. Those spaces meeting the criteria delineated in this section that does not have a known potential to contain a hazardous atmosphere will be designated as non-permit confined spaces.

2.4 Confined Space listing. This employer, once having evaluated our facility(s) will maintain a detailed listing that permanently identifies locations meeting the criteria for a confined space.

2.5 If ADT decides that only specific employees will enter permitted spaces, this employer shall take effective measures to prevent non-trained employees from entering the permit-required confined spaces.

2.6 For employees that are required to perform work in permit-required confined spaces. This employer shall implement the permit-required confined space entry program as delineated within this instruction. This written program will be available for inspection by employees, their authorized representatives, and authorized government inspectors.

2.7 Non-permit required confined spaces. Non-permit required confined spaces will be designated where the atmosphere and safety conditions can be controlled. Confined spaces may be entered without the need for a written permit or attendant provided that: 1. The space is determined not to be a permit- required confined space. 2. The space can be maintained in a safe condition for entry by mechanical ventilation alone. All spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. This company will ensure that any employee required or permitted to pre-check or enter a confined space shall have successfully completed the training as required by this instruction. A written copy of operating and rescue procedures as required by this instruction shall be at the work site for the duration of the job. A site specific Confined Space Pre-Entry Check List must be completed by the LEAD WORKER before entry into a confined space. This list will verify completion of the items required to verify safe entry. This check list shall be kept at the job site for the duration of the job. If circumstances dictate an interruption in the work, the permit-required confined space must be re-evaluated and a new check list must be completed. Assuming the conditions set forth in the paragraphs listed below can be met, the following elements of the permit required confined space program need not be complied with if: (see 2.7.1 - 2.7.3)

- (1) Permit required confined space program
- (2) Permit system
- (3) Entry permit
- (4) Duties of authorized entrants
- (5) Duties of attendants
- (6) Duties of entry supervisors
- (7) Rescue and emergency services

- (8) _____
- (9) _____
- (10) _____
- (11) _____
- (12) _____
- (13) _____
- (14) _____
- (15) _____

2.7.1 It can be demonstrated that the only hazard posed by the permitted space is an actual or potentially hazardous atmosphere.

2.7.2 It can be demonstrated that continuous forced air ventilation alone is sufficient to maintain the space safe for entry.

2.7.3 Monitoring and inspection data supports the demonstrations required by paragraphs 2.7.1 and 2.7.2.

2.8 If an initial entry of the permit space is necessary to obtain monitoring and inspection data. Worst case will be assumed and the full provisions of permit-required confined space entry procedures will be implemented.

2.9 Entry can be performed by company personnel, once determinations and supporting data required by paragraphs 2.7.1, 2.7.2, and 2.7.3 are documented, and are made available to each employee who enters the permit space.

2.10 Reclassification of a permit space after all hazards within the space have been eliminated. The following requirements apply to entry into permit spaces that meet the conditions set forth in paragraphs 2.7.1, 2.7.2, and 2.7.3. No company personnel will enter the confined space unless:

2.10.1 Conditions making it unsafe to remove an entrance cover are eliminated before the cover is removed.

2.10.2 The opening at entrance covers are guarded by a railing, temporary cover, or other temporary barrier that will prevent accidental fall-through and will protect each employee working in the space from foreign objects entering the space.

2.10.3 The internal atmosphere has been tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

- | | |
|---------------------------------------|---------------|
| (1) Oxygen content. (19.5% - 23.5%) | OSHA Mandated |
| (2) Flammable gases and vapors. | OSHA Mandated |
| (3) Potential toxic air contaminants. | OSHA Mandated |

(4) Airborne combustible dusts	Site Specific
(5) _____	Site Specific
(6) _____	Site Specific
(7) _____	Site Specific
(8) _____	Site Specific
(9) _____	Site Specific
(10) _____	Site Specific

2.11 There may be no hazardous atmosphere within the space whenever any employee is inside the space.

2.12 Continuous forced air ventilation shall be used, as follows:

2.12.1 No employee may enter the space until testing confirms that the forced air ventilation has eliminated any hazardous atmosphere.

2.12.2 The forced air ventilation shall be so directed as to ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees have left the space.

2.12.3 The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space.

2.12.4 The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

2.12.5 If a hazardous atmosphere is detected during entry:

- (1) All employees will evacuate.
- (2) The space shall be evaluated to determine how the hazardous atmosphere developed.
- (3) Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.

2.13 Permit Required Confined Space Certification. This employer shall verify that the space is safe for entry and that the measures required by a written certification permit meeting the criteria in 29 CFR 1910.146 are accomplished. This written certification will contain as a minimum; the date, the location of the space, and the signature of the person providing the certification. The certification shall be made before entry and shall be made available to each employee entering the space.

2.13.1 The following personnel are qualified to certify safe entry for company personnel entering confined spaces.

<u>Name</u>	<u>Title</u>
(1) William Poupis	Safety officer
(2) Steven Wolf	Field Manager

2.14 Non-Permit Required Confined Space Certification. When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, this employer shall reevaluate that space and, if necessary, reclassify it as a permit-required confined space.

2.15 Permit to Non-Permit Reclassification. A space classified by this employer as a permit-required confined space will be reclassified as a non-permit confined space under the following conditions:

2.15.1 If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.

2.15.2 If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed under the assumption that a hazard exists. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

Note: Control of atmospheric hazards through forced air ventilation alone does not constitute elimination of the hazards. Periodic monitoring will be conducted to ensure forced air ventilation maintains a safe worker environment for reclassification to a non-permit confined space.

2.15.3 This employer shall document the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains as a minimum; the date, the location of the space, and the signature of the person making the determination. The certification shall be made available to each employee entering the space.

2.15.4 If hazards arise within a permit space that has been declassified to a non-permit space, each employee in the space shall immediately exit the space and notify their supervisor. This employer shall then reevaluate the space and determine whether it must be reclassified as a permit space, in accordance with other applicable provisions of this instruction.

2.16 Company Responsibilities Regarding Contractor Operations in Permitted Confined Spaces. When this employer arranges to have employees of another employer (contractor) perform work that involves permit space entry, the this employer shall:

2.16.1 Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with the company permit space program meeting the requirements of this instruction.

2.16.2 Apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space;

2.16.3 Apprise the contractor of any precautions or procedures that the company has implemented for the protection of employees in or near permit spaces where contractor personnel will be working.

2.16.4 Coordinate entry operations with the contractor, when both company personnel and contractor personnel will be working in or near permit spaces.

2.16.5 Debrief the contractor at the conclusion of the entry operation regarding the company permit space program, and any hazards confronted or created in the concerned permit spaces during entry operations.

2.17 Contractor Responsibilities Regarding Contractor Operations in Permitted Confined Spaces. In addition to complying with the permit space requirements that apply to all employees of this company, each contractor who is retained to perform permit space entry operations shall:

2.17.1 Obtain any available information regarding permit space hazards and entry operations from this company.

2.17.2 Coordinate entry operations with this company, when both company personnel and contractor personnel will be working in or near permit spaces.

2.17.3 Inform the company of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces within this facility or others belonging to this company, either through a debriefing or during the entry operation.

3. Permit-required confined space program. Under the permit-required confined space program required by 29 CFR 1910.146, this employer shall:

3.1 Implement the measures necessary to prevent unauthorized entry.

3.2 Identify and evaluate the hazards of permit spaces before employees enter them.

3.3 Develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including, but not limited to, the following:

3.3.1 Specifying acceptable entry conditions.

3.3.2 Isolating the permit space.

3.3.3 Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.

3.3.4 Provide pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards.

3.3.5 Verify that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

3.3.6 Develop and utilize checklists based on this standard practice instruction and 29 CFR 1910.146.

3.4 Provide the following equipment at no cost to employees, maintain that equipment properly, and ensure that employees are trained in the proper use of the equipment:

3.4.1 Testing and monitoring equipment needed to determine if hazardous conditions exist or to verify that they do not exist.

3.4.2 Ventilating equipment needed to obtain acceptable air quality entry conditions.

3.4.3 Communications equipment necessary for communication between personnel involved in the entry operation.

3.4.4 Personal protective equipment insofar as feasible engineering and work practice controls do not adequately protect employees.

3.4.5 Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.

3.4.6 Barriers and shields as required to protect workers from pedestrian, and vehicular traffic.

3.4.7 Ladders, needed for safe ingress and egress by authorized entrants.

3.4.8 Rescue, Retrieval, and Emergency equipment needed to extract or treat injured personnel, except to the extent that the equipment and or service is provided by rescue services that are immediately available.

3.4.9 Any other equipment necessary for safe entry into and rescue from permitted spaces at our facility.

3.4.10 Principal equipment needed to conduct confined space operations. The below listed intrinsically safe equipment as a minimum will be maintained where required for confined space operations.

- (1) Multi-gas monitors
- (2) Ventilation Equipment
- (3) Rescue tripod/davit arm and winch system
- (4) Body harness's
- (5) Extraction cable and lanyards
- (6) Air Compressors (as required)
- (7) Supplied Air respirators (as required)
- (8) Air purifying respirators (as required)
- (9) SCBA equipment (as required)
- (10) Emergency escape breathing app. (as required)
- (11) Radio communication system (as required)
- (12) Signage (as required)
- (13) Lock-out/Tag-out Equipment (as required)
- (14) Intrinsically safe lighting equipment
- (15) Personal protective clothing
- (16) Hearing protection equipment
- (17) Head protection equipment
- (18) Eye Protection equipment
- (19) First Aid kits
- (20) Time keeping equipment
- (21) Hand tools
- (22) Escape ladders for depths of four feet or shoulder height
- (23) _____
- (24) _____
- (25) _____
- (26) _____
- (27) _____
- (28) _____

3.5 Evaluation of Permitted Space Conditions. This company will evaluate permit space conditions as follows when entry operations are conducted:

3.5.1 Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing shall be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions shall be continuously monitored in the areas where authorized entrants are working.

3.5.2 Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.

3.5.3 When testing for atmospheric hazards, use the following protocol; first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors.

Note: Atmospheric testing conducted in accordance with the "procedures for atmospheric testing" section of this instruction or Appendix B to 29 CFR 1910.146 will be used to satisfy this requirement. This appendix can also be used develop procedures for permit space operations in sewers and other job sites, when supplemented by Appendix C (Examples) to 29 CFR 1910.146.

Note: Attendants may be assigned to monitor more than one permit space provided their duties can be effectively performed for each permit space that is monitored. Likewise, attendants may be stationed at any location outside the permit space to be monitored as long as their duties can be effectively performed for each permit space that is monitored.

3.5.4 If multiple spaces are monitored by a single attendant, the permit will be annotated to provide the means and procedures by which the attendant is to respond to an emergency affecting one or more of the permit spaces being monitored.

3.5.5 When a confined space entry is to take place this company as part of the preplanning process, will designate in advance the persons who are to have active roles in the entry operation. Additionally the duties of each such employee will be identified, and provided with the required training required by the training section of this instruction. The confined space entry team will include but is not limited to the following:

- (1) Authorized entrants
- (2) Attendants
- (3) Entry supervisors
- (4) Atmospheric monitoring personnel
- (5) Certifying personnel
- (6) Rescue/Emergency services personnel

- (7) _____
- (8) _____
- (9) _____
- (10) _____
- (11) _____
- (12) _____
- (13) _____
- (14) _____
- (15) _____

3.5.6 This company will develop procedures prior to the commencement of confined space operations for the following:

- (1) Summoning rescue and emergency services
- (2) Rescuing entrants from permit spaces
- (3) Providing necessary emergency services for rescue
- (4) Preventing unauthorized personnel from attempting a rescue
- (5) _____
- (6) _____
- (7) _____
- (8) _____
- (9) _____
- (10) _____

3.5.7 Development and implementation for the preparation, issuance, use, and cancellation of entry permits will be as follows:

3.5.7.1 When employees of contractor personnel or non-company employees are working simultaneously as authorized entrants in a permit space, the certifying official of the permit (or predesignated representative) will ensure that all parties concerned are aware of the accepted entry procedures for the specific operation. This will ensure entry operations are properly coordinated.

3.5.7.2 The certifying official of the permit (or predesignated representative) will ensure that all parties concerned are aware of the accepted procedures necessary for concluding the entry after entry operations have been completed (such as closing off a permit space and canceling the permit).

3.5.7.3 This employer will immediately review and as necessary halt and revise entry operations when there is reason to believe that the measures taken under the permit space program may not protect employees. The focus will be directed at the correction of deficiencies found to exist before subsequent entries are authorized. Examples of circumstances requiring the review of the permit-required confined space program are as a minimum:

- (1) Any unauthorized entry of a permit space.
- (2) The detection of a permit space hazard not covered by the permit.
- (3) The detection of a condition prohibited by the permit.
- (4) The occurrence of an injury or near-miss during entry.
- (5) A change in the use or configuration of a permit space.
- (6) Employee complaints about the effectiveness of the program.
- (7) _____
- (8) _____
- (9) _____
- (10) _____
- (11) _____
- (12) _____

3.5.7.4 Review of the permit-required confined space program, using the canceled permits retained will be accomplished within 1 year after each entry and the program revised as necessary, to ensure that employees participating in entry operations are protected from permit space hazards.

Note: Single annual reviews covering all entries performed during a 12-month period will be accomplished. If no entry is performed during a 12-month period, no review is necessary.

4. Permit system. To comply with the permit-system required by 29 CFR 1910.146, this employer shall:

4.1 Before entry is authorized, document the completion of the following measures:

4.1.1 Specifying acceptable entry conditions.

4.1.2 Isolating the permit space.

4.1.3 Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.

4.1.4 Provide pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards.

4.1.5 Verify that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

4.1.6 Develop and utilize checklists based on this standard practice instruction and 29 CFR 1910.146.

4.2 Before entry begins, the entry supervisor identified on the permit shall sign the entry permit to authorize entry.

4.3 The completed permit shall be made available at the time of entry to all authorized entrants, by posting it at the entry portal or by any other equally effective means, so that the entrants can confirm that pre-entry preparations have been completed.

4.4 The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit.

4.5 The entry supervisor shall terminate entry and cancel the entry permit when:

4.5.1 The entry operations covered by the entry permit have been completed.

4.5.2 A condition that is not allowed under the entry permit arises in or near the permit space.

4.6 This employer shall retain each canceled entry permit for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.

5. Entry permit. This company shall develop or use a standardized entry permit form (see section 11 this document) that documents compliance with this section and authorizes entry to a permit space. As a minimum the permit in use shall identify the following:

5.1 The permit space to be entered.

5.2 The purpose of the entry.

5.3 The date and the authorized duration of the entry permit.

5.4 The authorized entrants within the permit space, by name or by such other means (for example, through the use of rosters or tracking systems) as will enable the attendant to determine quickly and accurately, for the duration of the permit, which authorized entrants are inside the permit space. If a tracking system is used for certain entries this requirement may be met by inserting a reference on the entry permit as to the means used, such as a roster or tracking system, to keep track of the authorized entrants within the permit space.

5.5 The personnel, by name, currently serving as attendants.

5.6 The individual, by name, currently serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized entry.

5.7 The hazards of the permit space to be entered.

5.8 The measures used to isolate the permit space and to eliminate or control permit space hazards before entry. Such as; the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing permit spaces.

5.9 The acceptable entry conditions.

5.10 The results of initial and periodic atmospheric tests performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed.

5.11 The rescue and emergency services that can be summoned and the means (such as the equipment to use and the numbers to call) for summoning those services.

5.12 The communication procedures used by authorized entrants and attendants to maintain contact during the entry.

5.13 Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with the permit requirement.

5.14 Any other information whose inclusion is necessary, given the circumstances of the particular confined space, in order to ensure employee safety.

5.15 Any additional permits, such as for hot work, that have been issued to authorize work in the permit space.

5.16 This employer shall provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this section.

6. Training. This company shall develop a standardized training format to meet the requirement for a safe confined space entry.

6.1 Training shall be provided to each affected employee:

6.1.1 Before the employee is first assigned duties that require a confined space entry.

6.1.2 Before there is a change in assigned duties.

6.1.3 Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained.

6.1.4 Whenever this employer has reason to believe that there are deviations from the permit space entry procedures required by this instruction or inadequacies in the employee's knowledge or use of these procedures.

6.2 The training shall establish employee proficiency in the duties required by this instruction and shall introduce new or revised procedures, as necessary, for compliance with this instruction or when future revisions occur.

6.3 This employer shall certify that the training required by this section has been accomplished. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

7. Duties of authorized entrants. This employer shall ensure that all authorized entrants:

7.1 Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.2 Properly use equipment as required by paragraph 29 CFR 1910.146 (d)(4) of this section.

7.3 Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required by this section.

7.4 Alert the attendant whenever:

7.4.1 The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.

7.4.2 The entrant detects a prohibited condition.

7.5 Exit from the permit space as quickly as possible whenever:

7.5.1 An order to evacuate is given by the attendant or the entry supervisor.

7.5.2 The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.

7.5.3 The entrant detects a prohibited condition.

7.5.4 An evacuation alarm is activated.

8. Duties of authorized attendants. This employer shall ensure that each attendant:

8.1 Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

8.2 Is aware of possible behavioral effects of hazard exposure in authorized entrants.

8.3 Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants under this section accurately identifies who is in the permit space.

8.4 Remains in a predesignated location outside the permit space during entry operations until relieved by another attendant.

Note: When this employer's permit entry program allows attendant entry for rescue, attendants may enter a permit space to attempt a rescue if they have been trained and equipped for rescue operations as required by the "rescue and emergency services" section of this instruction and if they have been relieved as required by this section.

8.5 Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.

8.6 Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions.

8.6.1 If the attendant detects a prohibited condition.

8.6.2 If the attendant detects the behavioral effects of hazard exposure in an entrant.

8.6.3 If the attendant detects a situation outside the space that could endanger the entrants.

8.6.4 If the attendant cannot effectively and safely perform all the duties required under this section.

8.7 Summon rescue and other emergency services as soon as the attendant determines that entrants may need assistance to escape from permit space hazards.

8.8 Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:

8.8.1 Warn the unauthorized persons that they must stay away from the permit space.

8.8.2 Advise the unauthorized persons that they must exit immediately if they have entered the permit space.

8.8.3 Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

8.9 Performs non-entry rescues as specified by this employer's rescue procedure.

8.10 Performs no duties that might interfere with the attendant's primary duty to monitor and protect the entrants.

9. Duties of entry supervisors. This employer shall ensure that each entry supervisor:

9.1 Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

9.2 Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

9.3 Terminates the entry and cancels the permit as required in accordance with the "permit section" this instruction.

9.4 Verifies that rescue services are available and that the means for summoning them are operable.

9.5 Ensures removal of unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

9.6 Determines, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

10. Rescue and emergency services. The following requirements apply to company personnel who enter permit spaces to perform rescue services.

10.1 This employer shall ensure that each member of the rescue service is provided with, and is trained to use properly, the personal protective equipment and rescue equipment necessary for making rescues from permit spaces.

10.2 Each member of the rescue service shall be trained to perform the assigned rescue duties. Each member of the rescue service shall also receive the training required of authorized entrants under the "duties of authorized entrants" section of this instruction.

10.3 Each member of the rescue service shall practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, mannequins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which this company anticipates rescue is to be performed.

10.4 Each member of the rescue service shall be trained in basic first-aid and in cardiopulmonary resuscitation (CPR). At least one member of the rescue service holding current certification in first aid and in CPR shall be available.

10.5 Non-company rescue personnel. When non-company rescue personnel are designated to perform permit space rescue, this employer shall:

10.5.1 Inform the rescue service of the hazards they may confront when called on to perform rescue.

10.5.2 Provide the rescue service with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

10.6 To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems used by this company shall meet the following requirements.

10.6.1 Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head. Wristlets may be used in lieu of the chest or full body harness if it is demonstrated that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

10.6.2 The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

10.7 If an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other similar written information is required to be kept at the worksite, that MSDS or written information shall be made available to the medical facility treating the exposed entrant.

11. Procedures for Atmospheric Testing. Atmospheric testing for confined space entry is required for two distinct purposes: Evaluation of the hazards of the permit space and verification that acceptable entry conditions for entry into that space exist.

11.1 Evaluation testing. This company will ensure that the atmosphere of a confined space is analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise. This is required to ensure that appropriate permit entry procedures specific to the operation can be developed and acceptable entry conditions stipulated for that specific space. Evaluation and interpretation of these data, and development of the entry procedure, will be done by, or reviewed by, a technically qualified professional (e.g., OSHA consultation service, or certified industrial hygienist, registered safety engineer, certified safety professional, certified marine engineer etc.) based on evaluation of all serious hazards. The internal atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

(1) Oxygen content. (19.5% - 23.5%)	OSHA Mandated
(2) Flammable gases and vapors.	OSHA Mandated
(3) Potential toxic air contaminants.	OSHA Mandated
(4) Airborne combustible dusts	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific

11.2 Verification testing. The atmosphere of a permit space which may contain a hazardous atmosphere will be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) will be recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition. The atmosphere will be verified, with a calibrated direct-reading instrument, for the following conditions in the order given:

(1) Oxygen content. (19.5% - 23.5%)	OSHA Mandated
(2) Flammable gases and vapors.	OSHA Mandated
(3) Potential toxic air contaminants.	OSHA Mandated
(4) Airborne combustible dusts	Site Specific
_____	Site Specific
_____	Site Specific

_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific

11.3 Duration of testing. Measurement of values for each atmospheric parameter will be made for at least the minimum response time of the test instrument specified by the manufacturer.

11.4 Testing stratified atmospheres. When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope will be tested a distance of approximately 4 feet (1.22 m) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress will be slowed to accommodate the sampling speed and detector response. The stratified atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

(1) Oxygen content. (19.5% - 23.5%)	OSHA Mandated
(2) Flammable gases and vapors.	OSHA Mandated
(3) Potential toxic air contaminants.	OSHA Mandated
(4) Airborne combustible dusts	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific
_____	Site Specific

12. **Format for Confined Space Permit.** (Starts at top of next page.)

ADT
Confined Space Entry Permit

Job Site: _____ Permit Number: _____

Permit Validity Period: (day/time) _____ to _____

Confined space identification code (if identified) (_____)

Notes: _____

Authorized Personnel

Workers Authorized Entry	Attendants	Fire watch (hot work)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Known hazards (indicate specific hazards with initials)

_____ Oxygen deficiency (less than 19.5%)
_____ Oxygen enrichment (more than 23.5%)
_____ Flammable gases or vapors (more than 10% of LEL)
_____ Airborne combustible dust (meets or exceeds LFL)
_____ Toxic gases or vapors (more than PEL) _____
_____ Mechanical hazards
_____ Electrical hazards
_____ Engulfment hazards
_____ Materials harmful to skin
_____ Other: _____
_____ Other: _____
_____ Other: _____
_____ Other: _____
_____ Other: _____

Employee Training and Pre-Entry Briefing

1. Safe Entry and Rescue Training Conducted on? _____
2. Mandatory Pre-Entry Briefing Conducted on? _____
3. Does this job require any special training? Yes _____ No _____
If yes, type of training required. _____

Contractor Notification

Contractor Notified of: Permit Conditions: Yes___ No___
Potential Hazards: Yes___ No___

Communication Requirements: Intrinsically Safe? Yes___ No___
Visually Inspected? Yes___ No___

Lighting Requirements: Intrinsically Safe? Yes___ No___
Visually Inspected? Yes___ No___

SpADTAl Tools/Equipment: Intrinsically Safe? Yes___ No___
Visually Inspected? Yes___ No___

Site Preparation

- | | |
|--|--------------|
| 1. Work area isolated with signs and or barriers | Yes___ No___ |
| 2. All energy sources locked/tagged out? | Yes___ No___ |
| 3. All input lines capped/blinded? | Yes___ No___ |
| 4. If vessel, drained, flushed, neutralized? | Yes___ No___ |
| 5. If vessel, cleaned, purged? | Yes___ No___ |
| 6. Ventilation initiated 30 min. before entry? | Yes___ No___ |
| 7. Fire extinguishers on hand? | Yes___ No___ |
| 8. _____ | Yes___ No___ |
| 9. _____ | Yes___ No___ |
| 10. _____ | Yes___ No___ |

Pre-Entry Atmospheric Testing

Action Requirement	Reading	Time	Intervals	Levels
1. Test for oxygen content	%O ₂	_____	_____	_____
2. Test for flamm. concent.	<10%LEL	_____	_____	_____
3. Test for H ₂ S	<10PPM	_____	_____	_____
4. Test for Cl ₂	<.5PPM	_____	_____	_____
5. Test for CO	<35PPM	_____	_____	_____
6. Test for SO ₂	<2PPM	_____	_____	_____
7. Test for toxic concent.	PPM	_____	_____	_____
		_____	_____ of _____ (TLV=_____)	
8. Test for heat stress	_____ of _____	_____	_____	_____
9. Test for _____	_____	_____	_____	_____
10. Test for _____	_____	_____	_____	_____

Tester: Name: _____ Signature: _____

Title: _____ Date: _____ Time: _____

Emergency/Rescue Procedures

1. Location of written Emergency/Rescue Plan: _____
2. Type of Emergency/Rescue Team required: _____

On-site: Yes ___ No ___ Contact: _____ Phone: _____

Off-site: Yes ___ No ___ Contact: _____ Phone: _____

3. Additional Information:

Safety Equipment

Personal Protective Equipment Required

1. _____
2. _____
3. _____
4. _____
5. _____
6. Air purifying respirator? Type: _____ Yes _____ No _____
7. Self-contained Breathing Apparatus Required? Yes _____ No _____
8. Atmospheric Monitor Required? Type: _____ Yes _____ No _____

Area Safety Equipment Required

1. _____
2. _____
3. _____
4. _____
5. _____

Permit Authorization

I certify that I have inspected the work area for safety and reviewed all safety precautions recorded on this permit.

1. Name: _____ Signature: _____
Title: _____ Date: _____ Time: _____

2. Name: _____ Signature: _____
Title: _____ Date: _____ Time: _____