Health and Safety Plan Hunts Point Food Center Drive Bronx, New York October 2021



104 Harbor Road, Port Washington, NY 11050. Tel. 516-883-8484 / Fax 516-883-9692

COW BAY CONTRACTING, 104 HARBOR ROAD, PORT WASHINGTON, NY, 11050

Health and Safety Plan

Hunts Point Food Center Drive Bronx, New York, 10474

Prepared For:

New York City Economic Development Corporation 110 William Street New York, New York 10038

Submitted by:

COW BAY CONTRACTING, 104 HARBOR ROAD, PORT WASHINGTON, NY, 11050

AlluvadaJithendra
Project manager

October 2021

1. Emergency Contact Information

Table 1. Emergency Information

Important Pho	Directions to Hospital	
Local Police:	911	To Hospital (3.8 mi, ~ 16 min):
Fire Department:	911	Head northwest on Food Center Drive
Ambulance:	911	towards Halleck St (0.9 mi) 2. Continue onto E Bay Ave (0.5 mi).
State Police or County Sheriff:	911	Continue onto E Bay Ave (0.3 ml). Turn right onto Tiffany St (0.2 ml). Turn left onto Randall Ave (0.2 ml).
Lincoln Medical Center: 234 E 149th St Bronx, NY 10451	(718) 579-5000	 5. Continue onto Leggett Ave (0.3 mi). 6. Turn left onto Bruckner Blvd (249 ft). 7. Slight right onto Timpson PI (1.0 mi). 8. Turn right onto E 149th St (1.1 mi).
Medcare Urgent Care-Walk In: 1643 Westchester Avenue Bronx, NY 10472	(718) 328-1900	9. Turn left onto Morris Ave (154 ft).10. Hospital is on the right.
Project Manager: Alluvada V Jithendra	5168838484 office 5164696881 cell	To Occupational Clinic (3.4 mi, ~ 10 min) 1. Head northwest on Food Center Rd towards Halleck St (0.9 mi).
Client Contact: Steven Bettencourt (NYCEDC PM)	(212) 618-5798 office 917-509-8714 cell	 Turn right onto Halleck St (0.5 mi). Slight left onto Edgewater Rd (0.5 mi). Turn right onto Bruckner Blvd (0.7 mi). Slight right onto the Bronx River Pkwy N ramp to White Plains (0.1 mi). Take exit 2W toward Metcalf Ave (0.2 mi). Merge onto Metcalf Ave Turn left onto Metcalf Ave/ Sound View Ave (0.2 mi). Turn left onto Westchester Ave. Medcare Urgent Care is on the right.

2. Background Information

2.1 General

G C Cow Bay Contracting,

104 harbor road, Port Washington, NY, 11050

Project Name Hunts Point Food Center Drive

Pot Hole Repair

Bronx, New York 10474

This Health and Safety Plan (HASP) establishes policies and procedures to protect personnel from the potential hazards posed by the activities at the former Voluntary Cleanup Agreement (VCA) Food Center Drive, Bronx, New York.Subcontractors will prepare their own Site-specific HASP and may use this as a guide. The plan identifies measures to minimize accidents and injuries, which may result from project activities or during adverse weather conditions. A copy of this HASP will be maintained on site for the duration of the work.

Appendix C details the signs, symptoms, care and procedures to both heat and cold stress. Appendix D includes the Tailgate Safety Briefing form, the Project Safety Briefing form, the Accident/Incident Report Form and the Near Miss Reporting Form.

2.2 Project Description

Historically, the Site was part of the Consolidated Edison Company of New York (Con Ed) Manufactured Gas Plant (MGP) that operated from 1926 until the early 1960s. Gas operations included a coke/oven gas plant, a carbureted water gas plant, a light oil plant, and a liquid petroleum production area. In total, approximately 46 buildings or structures existed

on the former Con Ed MGP facility that were actively involved in gas production. The facility stopped production in the early 1960s and was demolished in early 1968. Portions of the former MGP have been divided into parcels (A through F) for purposes of investigation.

2.3 Site Description

The Site is located in a commercial and industrial area of the Hunts Point section of the Borough of the Bronx. The Site consists of the paved roadway from Halleck Street on both the north and South. The roadway is currently covered under a New York State Department of Environmental Conservation (NYSDEC) approved Site Management Plan (SMP) and environmental easement.

Hazard/Risk Analysis

2.4 Special Site Conditions or Concerns

- Chemical/Contaminant Exposure Not needed as we are only going 3 to 4" with asphalt milling
- Traffic The majority of traffic on the project site will be construction traffic and vehicular traffic from employees and visitors to the facility. Food Center Drive is an extremely busy roadway, located west of the site.
- Cold Stress/Heat Stress depends on time of year
- Bio hazards (insect bites, poison ivy, etc.) -Not needed as we are only going 3 to 4" with asphalt milling and all work is on Asphalt road

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- Inclement weather/hazardous winter conditions Cold stress, slippery surfaces, and icy conditions are possible dangers.
- Utilities Large utilities along Food Center Drive and throughout the property- Not needed as we are only going 3 to 4" with asphalt milling

Safety equipment will include: First aid kit, fire extinguisher, eye wash bottles, adequate supply of drinking water and electrolyte fluids, hand cleaner, insect repellent, sunscreen, and cell phone.

2.5 Activity Hazard Analysis

Table 2. Activity Hazard Analysis

General Hazards These Hazards Apply to All Site Activities	Control Measure	
Cold Stress – Hypothermia, Frostbite	 Take breaks in heated shelters when working in extremely cold temperatures. Drink warm liquids to reduce the susceptibility to cold stress. Wear protective clothing (recommended three layers: an outside layer to break the wind, a middle layer to provide insulation, and an inner layer of cotton of synthetic weave to allow ventilation). Wear a hat and insulated boots. Keep a change of dry clothing available in case clothes become wet. Do heavy work during the warmer parts of the day and take breaks from the cold. If possible shield work areas from drafts of wind and use insulating material on equipment handles when temperatures are below 30°F Watch for symptoms of cold stress. (see Appendix C in HASP) 	
Dusty Conditions –	Avoid travel at extreme times	
Eye and respiratory irritation	Wear protective gear – dust masks, safety glasses	
Heat stress – Fainting, Fatigue, Heat Stroke	 Increase water intake while working. Increase number of rest breaks and/or rotate workers in shorter work shifts. Rest in cool, dry areas. Watch for signs and symptoms of heat exhaustion and fatigue. Plan work for early morning or evening during hot months. Use ice vests when necessary. In the event of heat stroke, bring the victim to a cool environment and initiate first aid procedures. See Appendix C of the HASP 	
Inclement Weather	 Listen to local forecasts for warnings about specific weather hazards such as tornados, thunder storms, and flash floods. If the storms produce thunder and/or lightning, leave the work area immediately and move to a safe area. Discuss an action plan prior to the severe weather. Wear appropriate PPE for the type of weather that could be encountered. Stop work until conditions are suitable. Take cover in vehicles or shelter as appropriate. See SOP HS-010 	

General Hazards These Hazards Apply to All Site Activities	Control Measure
Physical Injury – Slips, Trips and Falls	 Wear PPE that properly fits, is in good condition and appropriate for the activities and hazards. Maintain good visibility of the work area. Avoid walking on uneven, steeply sloped or debris ridden ground surfaces. Plan tasks prior to preforming them including an activity hazard analysis. Keep trafficked areas free from slip/trip/fall hazards. Maintain weed growth in sampling areas, especially on slopes. Wear shoes with traction. Avoid traversing steep areas in slippery conditions. Do not carry heavy objects to sampling areas, on steeply sloped areas, or where steep areas must be traversed to arrive at sample points.
Utilities – Shock, Electrocution, Fire, Explosion	 A thorough underground utility survey must be conducted prior to intrusive activities. Coordination with utility locating services, property owner(s) or utility companies must be conducted. Utilities are to be considered live or active until documented otherwise. For overhead utilities within 50 feet, determine with the utility company the appropriate distance. Minimum distance for clearance is based on voltage of the line. If exposing a utility, proper support and protection must be provided so that the utility will not be damaged. If a gas line is contacted, the contractor must notify police, fire, and emergency personnel, and evacuate employees according to the site evacuation procedures. No attempt should be made to tamper with or correct the damaged utility. See SOP HS-014

General Hazards These Hazards Apply to All Site Activities	Control Measure
Vehicular Traffic – Struck by injury, crushing	 Increase visibility of the work area to others by using cones, flags, barricades, proper lighting and caution tape to define work area. Use a "spotter" to locate oncoming vehicles. Use vehicle to block work area. Engage police detail for all work conducted in appropriate areas. Wear high-visibility, reflective vest at all times. Maintain minimum DOT defined distances to other traffic lanes. See SOP HS-016.

Activity	Potential Hazard	Control Measures
Heavy Lifting	Back injury, knee injury	 Use proper lifting techniques. Ask fellow worker for help. Use a mechanical lifting device or a lifting aid where appropriate. If you must lift, plan the lift before doing it. Check your route for clearance. Bend at the knees and use leg muscles when lifting. Use the buddy system when lifting heavy or awkward objects. Do not twist your body while lifting. See SOP HS-025

If Site conditions suggest the existence of a situation more hazardous than anticipated, the Site personnel will evacuate the immediate area. The hazard, the level of precautions, and the PPE will then be reevaluated with the assistance and approval of the CHSO and the Project Manager (PM).

4.2.1 Utility Hazards

The Site may have shallow, buried utilities and also overhead utilities in certain areas. It will be necessary for parties disturbing the existing ground surface and conducting operations with heavy equipment having high clearances to exercise caution in performing project-related work with respect to the presence of utilities. Utility companies with active, buried lines in the Site area will be asked by the Contractor performing intrusive activities to mark their facilities. Employees will use these data to choose work locations.

4.2.1.1 Overhead Utilities

Overhead transmission and distribution lines will be carried on towers and poles which provide adequate safety clearance over roadways and structures. Clearances will be adequate for the safe movement of vehicles and for the operation of construction equipment.

Overhead or above-ground electric lines should be considered active until a reliable source has documented them to be otherwise. Elevated work platforms, ladders, scaffolding, manlifts, and drill or vehicle superstructures will be erected a minimum of 20 feet (the actual distance is dependent upon the voltage of the line) from overhead electrical lines until the line is de-energized, grounded, or shielded so arcing cannot occur between the work location or superstructure.

4.2.2 Cold Stress

Employees may be exposed to the hazards of working in cold environments. Potential hazards in cold environments include frostbite, trench foot or immersion foot, hypothermia, as well as slippery surfaces, brittle equipment, and poor judgment.

4.2.3 Noise

Noise is a potential hazard associated with the operation of heavy equipment, power tools, pumps, and generators. Employees who will perform suspected or established high noise tasks and operations for short durations (less than 1-hour) will wear hearing protection. If deemed necessary by the SSO, the CHSO will be consulted on the need for additional hearing protection and the need to monitor sound levels for Site activities. Other employees who do not need to be in proximity of the noise should distance themselves from the equipment generating the noise.

4.2.4 Hand and Power Tools

In order to complete the various tasks for the project, personnel may use hand and power tools. The use of hand and power tools can present a variety of hazards, including physical harm from being struck by flying objects, being cut or struck by the tool, fire, and electrocution. Work gloves, safety glasses, and hard hats will be worn by the operating personnel when using hand and power tools and Ground Fault Circuit Indicator (GFCI)-equipped circuits will be used for power tools.

4.2.5 Slips, Trips, and Falls

Working in and around the Site may pose slip, trip, and fall hazards due to slippery and uneven surfaces. Excavation at the Site may cause uneven footing in trenches and around the soil piles. Steep slope and uneven terrain conditions at the Site are also a primary concern. GEI employees will wear proper foot gear and will employ good work practice and housekeeping procedures to minimize the potential for slips, trips, and falls.

4.2.6 Manual Lifting

Manual lifting of objects and equipment may be required. Failure to follow proper lifting technique can result in back injuries and strains. Employees should use a buddy system and/or power equipment to lift heavy loads whenever possible and should evaluate loads before trying to lift them (i.e., they should be able to easily tip the load and then return it to its original position). Carrying heavy loads with a buddy and proper lifting techniques

include: 1) make sure footing is solid; 2) make back straight with no curving or slouching; 3) center body over feet; 4) grasp the object firmly and as close to your body as possible;

5) lift with legs; and 6) turn with your feet, don't twist.

4.2.7 Cuts and Lacerations

The core sampling program may require employees to use powered cutting tools (circular saw or shears) or a hooked knife to cut open the sample liner. Safety box cutters will be utilized for routine operations such as opening boxes of supplies or cutting rope or string. When using cutting tools, follow the safety precautions listed below:

- Keep free hand out of the way.
- Secure work if cutting through thick material.
- Use only sharp blades; dull blades require more force that results in less knife control.
- Pull the knife through the object and away from your body; pulling motions are easier to manage.
- Do not put the knife in your pocket.
- Wear leather or Kevlar® gloves when using knives or blades, or when removing sharp objects caught or dangling in sampling gear.

4.3.1 Heavy Metals

Heavy metals such as arsenic, chromium, and mercury have been detected in site samples. Exposure to high concentrations of arsenic can cause dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, and hyper pigmentation of skin. Chronic exposure to arsenic has resulted in lung cancer in humans. Arsenic is regulated by specific OSHA standards. They are 29 CFR 1910.1025/1926.52 and 29 CFR 1910.1018/1926.1118, respectively. These standards include specific requirements for air monitoring, signs and labels, training and medical surveillance.

Exposure to chromium can cause acute symptoms such as irritation of the eyes, nose and throat as well as wheezing and coughing. Chronic effects include nosebleeds, nasal congestion, dermatitis, and loss of sight. Exposure to mercury can cause dizziness, salivation nausea, vomiting, diarrhea, constipation, emotional disturbance, and kidney injury. Chronic exposure to mercury can cause CNS damage.

These metals are at environmental concentrations and are not expected to be at concentrations that exposure symptoms would occur. As with SVOCs, the primary route of exposure is through inhalation of dust particles when soil is disturbed and becomes airborne.

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4.4.1 Sun Exposure

Employees are encouraged to liberally apply sunscreen, with a minimum sun protection factor (SPF) of 15, when working outdoors to avoid sunburn and potential skin cancer, which is associated with excessive sun exposure to unprotected skin. Additionally, employees should wear safety glasses that offer protection from ultraviolet A and B (UVA/UVB) rays.

Table 4. Site-Specific PPE

Task	PPE Level	Site-Specific Requirements	Respirator
Mobilization/Demobilization			
Mobilization/Demobilization of Equipment and Supplies	D	Hard hat, safety glasses, steel toe/shank safety boot, reflective vest, leather work gloves, hearing protection as needed	D – None
Establishment of Site Security, Work Zones, and Staging Area	D	Hard hat, safety glasses, steel toe/shank safety boot, reflective vest, leather work gloves, hearing protection as needed	D - None
Construction			
Excavation, Test Pit Excavation, Backfilling, Grading Observation, Sampling	D	Hard hat, safety glasses, steel toe/shank safety boot with overboot as needed, reflective vest, leather work gloves as needed, nitrile gloves, hearing protection as needed, Tyvek as needed	Level D initially, Level C-If action levels exceeded (see Section 9 of HASP)
Hazardous Materials Assessment			

For most work conducted at the site, Level D PPE will include long pants, hard hats, safety glasses with side shields, and steel toe/shank or EH-rated safety boots.

2.6 OSHA Requirements for PPE

Personal protective equipment used during the course of this field investigation must meet the following OSHA standards:

Table 5. OSHA Standards for PPE

Type of Protection	Regulation	Source
Eye and Face	29 CFR 1910.133	ANSI Z87.1 1968
Respiratory	29 CFR 1910.134	ANSI Z88.1 1980
Head	29 CFR 1910.135	ANSI Z89.1 1969
Foot	29 CFR 1910.136	ANSI Z41.1 1999 or ASTM F-2412-2005, and ASTM F-2413-2005

CRF = Code of Federal Regulations

ANSI = American

National Standards

Institute ASTM =

American Society for

Testing and Materials

3. Health and Safety Plan Sign-Off

Cow Bay Contracting personnel conducting site activities will be familiar with the information in this HASP. After reviewing this plan, please sign the copy in the project files, and bring a copy of the plan with you to the Site. By signing this site-specific HASP you are agreeing that you have read, understand, and will adhere to the provisions described in this plan while working on the Project Site below.

Site Name: Hunts Point Food Center Drive

Investigation: Pot Holes repair - Food centre drive

Cow Bay Project No:

Cow Bay Contracting 12 October 2021

Print Name	Signature
Alluvada V Jithendra	
Project Manager:	
Alluvada V	
Jithendra	

Safety and Site Controls

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Safety and Site Controls

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EXHIBITS

- A. Cow Bay Contracting Accident Report
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Safety and Site Controls

Safety Policy A-1

Safety and Environmental Policy

Cow Bay Contracting has a site Safety program that embodies the prevention of accidental injury, property damage, fire damage and occupational illness. No single feature of our work is of greater importance.

It is Cow Bay Contracting policy to provide a safe place to work with the prevention of accidents recognized as necessary at all times. Cow Bay Contracting employees and all others employed on the jobs are expected to conduct their work in a safe manner. Each contractor has a contractual obligation to perform his part of the work using safe methods. Work must be performed in a safe manner to eliminate injury and illness to employees and the public, and damage to property or the environment.

The elimination of injuries to the public and damage to property and the environment are equally as important as any other part of the Safety program. Therefore, work must be performed in a safe manner to control all hazards.

The U.S. Congress has recognized the importance of the prevention of accidental injuries and illnesses by enacting the Occupational Safety and Health Act of 1970. We must continue to improve the effectiveness of our Safety program to assure compliance with these and any like regulations that may be imposed.

Safety motivation begins with management interest. A commitment to Safety and health must start at the top and filter throughout all levels of an organization. Upper management must provide goals, allocate resources, assign responsibilities and evaluate performance in the Safety area, just as they do in others.

Cow Bay Contracting is totally responsible and accountable for the safe performance of work under its jurisdiction.

It is also the policy of Cow Bay Contracting and its subsidiaries to responsibly service our clients and be considerate of the environment in the conduct of our business without undue risk to the public, Cow Bay Contracting or to its employees. Accordingly, it is essential that environmental conditions be identified and satisfactory Risk Management Strategies approved.

All potential or suspected contaminated media or building components are to be tested before commencement of activities. Every business unit and each project shall have a designated Cow Bay Contracting employee to ensure environmental compliance. In case of unexpected environmental incidents, Cow Bay Contracting Environmental Accident Procedures will be followed.

Augustino D'Alonzo Sr.
President
Cow Bay Contracting, Corp.

April 2001

Safety and Site Controls

Safety Policy A-1

PRE-PROJECT PLANNING ACCIDENT PREVENTION

The establishment of a program of project pre-planning for Safety represents the single most effective means of preventing accidents. Staff management awareness of potential loss producing sources becomes a factor in the selection of work methods and equipment.

Cow Bay Contracting will establish a program and require pre-project Safety planning which will include the following essential steps:

- 1. <u>Fact Finding</u> Type of construction, methods of construction, equipment needed to get the job done, special provisions due to site location.
- 2. Analysis and Evaluation Spot potential sources of loss and determine priorities.
- Pre-planning Meeting Cow Bay Contracting Superintendent, Safety Director and Liberty Mutual Insurance Loss Prevention representative should analyze and evaluate the project to spot potential sources of loss and determine methods of abatement.
- 4. Follow Through Make sure the plan is followed successfully.

RESPONSIBILITIES

SAFETY OFFICERS

The Safety Officers of each company will maintain an overview of performance of Cow Bay Contracting on a summary basis and communicate the results to the respective companies.

Provide all Managers with any OSHA/EPA changes or updates to the Safety, Health and Environmental Regulations as issued.

Provide liaison with such organizations as ANSI, National Safety Council, and AGC to make sure we are current on new developments.

Review and evaluate methods, products, and devices to make recommendations regarding their use.

Provide advice on special problems and be alerted to serious accidents, serious OSHA Citations, etc.

Safety and Site Controls

Safety Policy A-1

RESPONSIBILITIES (continued)

PRESIDENT and GENERAL MANAGERS

The President and General Manager of respective companies will appoint a Safety Director to be responsible for the administration of the Safety & Environmental Program. If desired, the Safety and environmental duties may be split between two people.

Ensure cooperation and support of the Safety Director by all staff.

Require periodic Safety inspections, on a quarterly basis as a minimum, by Project Executives to monitor compliance with established program.

React with management to provide the Safety Director the tools necessary to get the job done efficiently.

PROJECT EXECUTIVE/MANAGER

The Project Executive/Manager shall conduct a quarterly Safety inspection and make a written report to Cow Bay Contracting Safety Director.

Work with the Business Development Department to ensure that a Phase I Environmental Study is conducted on all potential new work.

Assist Cow Bay Contracting Safety Director's Safety training classes and/or seminars.

SAFETY DIRECTOR

Safety Program

Establish and implement a program of pre-project Safety planning for Cow Bay Contracting which includes the Project Superintendent, Safety Director and Liberty Mutual Insurance Loss Prevention Representative.

Require and approve Safety and fire prevention programs for all projects prior to start of construction.

Review and evaluate minutes of all project Safety tours, Safety meetings and toolbox meetings.

Safety and Site Controls

Safety Policy A-1

RESPONSIBILITIES (continued)

SAFETY DIRECTOR

Establish and implement emergency evacuation program for Cow Bay Contracting office. See that emergency facilities such as: wheelchair, oxygen, first aid kit and fire extinguisher are available and that members of Cow Bay Contracting office are trained in first aid and CPR.

Prepare and submit superintendent evaluations to Safety Director monthly.

Work with the Project Executive to ensure that a Phase I Environmental Survey is completed.

Inspections

Inspect each Cow Bay Contracting project once every month with additional inspections as may be requested or required.

Follow with projects for correcting hazards noted by inspections of insurance carriers, project Safety coordinators, local, state and federal officials and by others.

Attend Cow Bay Contracting staff meetings to report on project's Safety.

Attend project progress meetings when requested or deemed necessary.

Attend job site Safety meetings when possible.

OSHA

Notify Cow Bay Contracting Safety immediately when an OSHA inspection has taken place.

Copy Cow Bay Contracting Safety with all correspondence, including citations relating to OSHA inspections.

In the event of an OSHA inspection on any project, including SPD, which results in a citation for a serious violation(s) against Cow Bay Contracting, an informal hearing is to be requested. Every effort must be made to have the citation abated. If unsuccessful at the informal hearing, a decision must be made whether to formally contest the citation.

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Safety and Site Controls

Safety Policy A-1

RESPONSIBILITIES (continued)

Accidents

Review all accident reports for complete and proper preparation.

Review all Monthly Accident Reports (form 627).

Maintain Cow Bay Contracting permanent accident file.

Audit insurance Cow Bay Contracting Loss Reports quarterly.

Investigate all serious accidents, fatal or near fatal, of Cow Bay Contracting or Subcontractors Employees, catastrophes (fire, explosions, collapses), etc. and all cases involving the public.

Provide copies of all documents to Cow Bay Contracting headquarters of respective companies.

<u>Miscellaneous</u>

Issue to each new project prior to start of construction a Safety Packet to include, but not limited to the following: Required posters, reporting forms such as OSHA 200, Cow Bay Contracting Monthly Accident Report, copy of OSHA 1926, Safety Policy A-3. Check with Cow Bay Contracting Safety for assistance.

Keep Cow Bay contracting personnel informed of any new or changes in local, state or federal laws or guidelines concerning Safety.

Maintain liaison with insurance carriers to provide loss prevention services within Cow Bay Contracting. Submit Job Notification Forms.

Issue to required personnel, copies of the Cow Bay Contracting Safety Policy.

Establish and make available to staff, Multimedia First Aid and CPR training.

Establish and monitor Safety Training as may be required or desirable.

Training of all Cow Bay Contracting personnel in all Safety and environmental rules and regulations is required on a regular basis.

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Safety and Site Controls

Safety Policy A-1

RESPONSIBILITIES (continued)

PROJECT SUPERINTENDENT

Develop project Safety and fire prevention program, which will include a Crisis Management, plan and submit it for approval to the Business Development Safety Director prior to the start of the project.

When walking the job on a daily basis, pay special attention to any hazardous conditions. Appoint an assistant or foreman from the job staff as Safety coordinator for periods not to exceed three months. If the Superintendent is not available, the appointee has full authority to take necessary actions in the case of imminent danger.

Conduct Safety meetings for assistants, foremen and responsible representatives of <u>all</u> subcontractors at least once a month. Subjects for discussion should cover but not be limited to:

- Superintendents' observations regarding Safety.
- Reports of the Project Safety Coordinator and actions taken on any recommendations.
- Accidents, which have occurred during the past month, including subcontractors' causes and corrections.
- Hazards involved in the work anticipated during the next month and methods of eliminating or protecting against them.
- Conditions and/or actions that may affect the public and methods for correcting them.
- Reports of foreman's Tool Box Safety Meetings.
- Assign Safety subjects for future foreman's Tool Box Safety meetings.

Make reference to any new Material Safety Data Sheets (MSDS) received since the last monthly Safety Meeting.

Make reference to Policy A-4 in the contract as a means of enforcing Safety on the project.

Issue Safety policy to job staff, foremen and subcontractors once a month concerning Safety subjects pertinent to the job.

Safety and Site Controls

Safety Policy A-1

RESPONSIBILITIES (continued)

Require each Cow Bay Contracting and Subcontractor's foreman to hold Tool Box Safety meetings of minimum 5 minutes duration with their crew at least once each week to discuss the following:

- Minutes of staff Safety meeting as they affect their work.
- Instruct the employees in safe and efficient planning of their work.
- The Safety subject assigned at the staff Safety meeting.
- Injuries that have occurred to their employees.
- Solicit comments and suggestions relating to Safety.

Distribute the job Safety and fire prevention program to each subcontractor <u>before</u> they start work and discuss their active participation in the accident prevention effort.

- Call particular attention to the subcontract clause entitled "Accident Prevention."
- Require each subcontractor to submit its Safety program in writing prior to start of work.
- Require each subcontractor to submit their Hazard Communication program in writing, list of hazardous chemicals used on site and MSDS's for products used.
- Require a report of all accidents and work-hours per month.
- Require minutes of Tool Box Safety Meetings.

Require all persons employed on the job to wear hard hats as a condition of employment.

Do not allow aluminum ladders on site as per Safety policies.

Provide and require, where necessary, the use of personal protective equipment such as goggles, hearing protection, respiratory protection, Safety harness, etc., by all Cow Bay Contracting employees.

All subcontractors are to provide personal protective equipment and enforce their use where required.

Visitors to the job site shall be provided with and required to wear hard hats and any other personal protective equipment as necessary.

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COW BAY CONTRACTING Safety and Site Controls

Safety Policy A-1

RESPONSIBILITIES (continued)

PROJECT SAFETY COORDINATOR

Make a minimum of one complete Safety inspection of the project each week.

Submit a written report of findings and recommendations to the Superintendent for each inspection. Copy Cow Bay Contracting Safety Director.

Make necessary Safety inspections on a more frequent basis if job conditions dictate.

Check with the Subcontractor representative on the disposition of Safety related matters.

Render assistance at Contractors "Tool Box" Safety Meeting if requested.

Distribute and post Safety information.

Maintain First Aid equipment.

Monitor the Job Safety Program as directed by Superintendent and follow with subcontractors for the correction of Safety violations.

Investigate all accidents, including those of Subcontractors, and submit written report. Copy Cow Bay Contracting Safety Director.

We must recognize that the principles of management control commonly applied to costs, schedules, quality and productivity are equally applicable to Safety and that when used, will improve Safety performance. Full cooperation of all those on each job is required to carry out this program.

Safety and Site Controls

Safety Policy A-2

SPECIAL AND SMALL PROJECTS

This Safety Bulletin applies only to projects of very short duration and whose contract amount is <u>LESS</u> <u>THAN TWO MILLION DOLLARS (\$1 million)</u>. Any project exceeding that amount shall comply with Safety Policy A-1.

The following Safety Program has been modified to specifically recognize the problems small, low budget jobs might have in following Cow Bay Contracting standard Safety Program, and those of the Superintendent in charge of multiple such jobs. Deviation from this program will be permitted <u>only</u> with the approval of Cow Bay Contracting Safety Director for concurrence.

MODIFIED SAFETY PROGRAM

- A. Each job must be pre-planned to provide a Safety program for each operation. Essential points to be considered (but not limited to) are as follows:
 - Potential hazards and hazardous procedures must be recognized and eliminated before an
 operation begins. A pre-project meeting is to be held to determine any potential serious
 exposures, i.e., asbestos, PCB, lead paint. A Phase I environmental study is required and a copy
 of the report submitted to Cow Bay Contracting Safety Director/Environmental Manager
 - 2. Recognition and elimination of potential fire hazards, as well as provision for fire protection in all constructed areas.
 - Determination of proper location of shanties, personnel facilities, and materials, material flow and traffic movements.
 - Prompt and efficient housekeeping methods. Scrap and debris shall not clutter the job, and the
 project job site shall be kept orderly and clean whenever possible and always by the close of
 business each workday.
 - 5. Provision for all tools and equipment necessary to complete the job efficiently and safely.
 - 6. Each subcontractor shall submit its Hazard Communication program in Writing, a list of hazardous chemicals used on site and MSDS's for all products Used on site, its Health & Safety standard operating procedures manual, and a Health & Safety plan applicable for the project.

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Safety and Site Controls

Safety Policy A-2

MODIFIED SAFETY PROGRAM (continued)

- B. The Superintendent is responsible for maintaining a safe job. The following are **minimum** requirements:
 - 1. Make at least one complete Safety inspection of the job weekly and submit a brief written report to Cow Bay Contracting Safety Director.
 - 2. Follow with the responsible contractor to require elimination of all job hazards.
 - 3. Require assistance of all job stewards in the prevention, and where necessary, correction of unsafe works habits.
 - 4. Conduct Safety meetings for all job personnel, including Subcontractors, at least every two weeks. Agenda should include at least the following subjects:
 - Causes and corrections of accidents, which have occurred since, last meeting (including those of Subcontractors).
 - Existing hazards in need of immediate correction.
 - Potential hazards involved in the work expected in the next two weeks, and methods of eliminating or protecting against them.
 - Conditions and/or actions that may <u>affect the public</u> and premises, including occupants
 other than our owner, and methods for handling them.
 - Submit minutes of these meetings to Cow Bay Contracting Safety Director.

Safety and Site Controls

Safety Policy A-2

MODIFIED SAFETY PROGRAM (continued)

- 5. Discuss the Safety Program with each Subcontractor before their start of work, and require their active participation.
 - Call particular attention to the subcontract clause entitled "Accident Prevention".
 - Require each Subcontractor to submit a written Safety Program prior to start of work.
 - Require reports of all Subcontractors' accidents.
- 6. All persons employed on the job are required to wear hard hats as a condition of employment.
- 7. Personal protective equipment (goggles, dust respirators, etc.) for Cow Bay Contracting employees will be kept in stock in sufficient number to meet job needs, and Cow Bay Contracting employees will be required to use such protection as required. All subcontractors shall provide their employees with personal protective equipment and enforce its use where required.
- All visitors to the job shall be provided with and required to use protective equipment where necessary. Hard hats are always required.
 - 9. Cow Bay Contracting Safety Policies the job staff and foreman must review Cow Bay Contracting Safety Program, Federal and State Safety Health Standards along with Environmental Regulations and policies.
- 10. Accidents shall be reported in compliance with Safety Policy A-5. Injuries, accidents and manhours shall be accumulated for all SPD contracts and reported on one Monthly Accident Report (Form 627) as if they were a single project; however, SPD job numbers shall be listed.
- 11. In renovation work be particularly alert for asbestos or other toxic substances in fireproofing, pipe insulation, etc
- 12. Reference Safety Policy D-4 on aluminum ladders.

Safety and Site Controls

Safety Policy A-3

JOB SAFETY PLANNING

In order to assist project superintendents in planning for Safety at the start of the project, a checklist is set forth below. The list consists of reminders of the various items that compose Cow Bay Contracting Safety Policies.

Obtain copies of Cow Bay Contracting Safety Policies. OSHA Construction Industry Book No. 2207.

SAFETY CHECKLIST

- 1. Conduct a phase one environmental study before work begins and a copy of that report sent to Cow Bay Contracting Safety Director/Environmental Manager.
- 2. Contact Loss Prevention Department of Insurance Carrier and arrange for consulting service and pre-construction meeting.
- 3. Prepare Safety program, send to Cow Bay Contracting Safety Director for review, then post on job bulletin board.
- 4. Establish project Hazard Communication program, including initial project survey and training schedule, contact Safety Director for assistance.
- 5. Prepare and post program of Fire Protection and Prevention.
- 6. Install fire alarm system and post alarm code. (OSHA 1926.150 [e]).
- 7. Post sketch showing location of fire alarm boxes and hydrants in area.
- 8. Prepare and post Medical Emergency Procedure.
- 9. Analyze job for potential hazards and hazardous procedures.
- 10. Establish plan for location of shanties, trailer, material storage, sanitary facilities, traffic flow, parking, dumpsters and temporary utilities.

Safety and Site Controls

Safety Policy A-3

SAFETY CHECKLIST (continued)

- 11. Arrange for sanitary facilities delivery and maintenance.
- 12. Arrange for dumpster delivery and debris removal
- 13. Locate nearest Doctor, Hospital and Ambulance Service. Contact your Insurance Carrier for their assistance in your selection.
- 14. Post phone numbers for Police, Fire, Doctor and Ambulance Service.
- 15. Contact Insurance Carrier and obtain forms for Worker's Compensation, Public Liability and Auto Accident.
- 16. Appoint a person to prepare Cow Bay Contracting Monthly Accident Report. Superintendent must check for accuracy, sign, or initial the report, submit two copies promptly to Cow Bay Contracting Safety Director, one copy to Project Executive and retain one copy for the job file.
- 17. Have Cow Bay Contracting Loss Report Forms on hand.
- 18. First Aid Kit and Stretcher.
- 19. Chart posted to signify weekly check on First Aid Kit.
- 20. Minimum of two on-site Cow Bay Contracting employees qualified with current certification in First Aid and CPR.
- 21. Prepare Pre-construction Survey for surrounding property existing conditions.
- 22. Prepare and post "Off Hours Emergency Notification List" of Cow Bay Contracting Staff and Subcontractors.
- 23. Prepare and post emergency telephone number for the gas, water, electric and telephone companies.

Safety and Site Controls

Safety Policy A-3

SAFETY CHECKLIST (continued)

- 24. Arrange for watchmen service and prepare watchmen's log.
- 25. Post Worker's Compensation Certificate.
- 26. Obtain any required state forms and posters.
- 27. Determine contact at local OSHA office.
- 28. Appoint person to be responsible for OSHA Form 200. This form must be kept up to date daily on a yearly basis. Send a copy of this completed form to Cow Bay Contracting Safety Director by January 15th of each year and post from February 1st to March 1st at your Project.
- 29. Contact State Safety Inspection Organization, or others as may be required by law.
- 30. Verify insurance on Subcontractors starting work on site prior to final execution of subcontract.
- 31. Read accident prevention paragraph in subcontract agreements.
- 32. Obtain from Subcontractors prior to their start of work:
 - A) Their Jobsite Safety Program
 - B) Their Jobsite Hazard Communication Program
 - C) Their list of hazardous chemicals used on site and corresponding MSDS's For these chemicals.
 - D) Their toolbox Safety talk schedule.
- 33. Obtain Safety equipment appropriate to operations.
 - A) Hard Hats
 - B) Safety harnesses
 - C) Goggles or Safety glasses.
 - D) Ear protection (Choice of earplugs and phone)
 - E) Carbon Monoxide tester

Safety and Site Controls

Safety Policy A-3

SAFETY CHECKLIST (continued)

- 34. Arrange for and post Safety posters and warning signs.
- 35. Establish Cow Bay Contracting Weekly Tool Box Safety Schedule.
- 36. Establish dates for Monthly Safety Meetings. Notify all Cow Bay Contracting field personnel and Subcontractors of dates, time and place of Safety Meetings. Superintendent is to chair all Safety Meetings.
- 37. Appoint Project Safety Coordinator, on a rotating basis for periods not to exceed three months.
- 38. Establish metal deck protection plan.
- 39. Establish wind protection and weather watch plan.
- 40. Establish ground fault program

NOTE: For assistance, contact your Cow Bay Contracting Director of Safety.

Safety and Site Controls

Safety Policy A-4

SAFETY ENFORCEMENT

To assist in our efforts to provide a safe workplace the following violations and penalties associated with them are to be included in all Cow Bay Contracting project, and SPD Safety programs, when elected by the Operations Manager, or as directed by Cow Bay Contracting Safety Director.

	Cow Bay Contracting Employees	Subcontractor Employees
1. No Hard Hat	1st Offense - Written Warning 2nd Offense - Discharge	\$200 Cow Bay Contracting Ticket
2. Remove Guardrail Without Adequate Replacement	Discharge	Back-charges for corrective action
3. Remove Opening Protection Without Adequate Replacement	Discharge	Back-charges for corrective action
4. Unsecured Compressed Gas Cylinders		\$5,000 Cow Bay Contracting Ticket
5. Open Electric Panels	*	\$5,000 Cow Bay Contracting Ticket

Project signage outlining this policy is to be created and conspicuously displayed at your job site.

Fines collected shall be credited to the cost of the work or added to the project Safety incentive program. Fines will be accessed to the Employee's.

Safety and Site Controls

Safety Policy A-5

RESPONSIBILITY AND PROCEDURE FOR ACCIDENT REPORTS

Injury, accident and loss report instructions are included as a part of this bulletin, and are to be reviewed by the Superintendent at the start of each job. The Superintendent must review all reports to see that the information is complete and understandable. In the case of serious accidents, the Superintendent should personally investigate and prepare the report.

This procedure covers the reporting of injury, property damage and/or property loss to any person employed by Cow Bay Contracting, its subcontractors or the public. Subcontractor is intended to mean any contractor working under Cow Bay Contracting inspection, supervision and/or direction whether under contract to Cow Bay Contracting or the Owner as on Construction Management. It will be used on all projects at all times - General Contracts, Construction Management Contracts, Consulting Contracts, SPD and Miscellaneous Projects for reporting Cow Bay Contracting liabilities.

The preparation of accident reports should not be delegated to inexperienced personnel. The Superintendent should assign this duty with some training as to the information required. The Field Accountant is especially helpful at the start of the operation.

It is difficult and sometimes impossible for our insurance carriers to classify and properly handle some accidents because of incomplete or inadequate information. The original report of the accident must be as complete a record of the facts as possible. Pertinent information that may develop later may be of great value and should be reported. An adequate description of each accident will aid in accurate classification of information to reduce the number of accidents, and serve to improve our experience.

The Superintendent will immediately advise Cow Bay Contracting Safety Director and Project Executive regarding accidents resulting in serious or fatal injury or extensive property damage. (Review Cow Bay Contracting Trauma Program)

The following four forms are used to report occurrences:

- 1. Worker's Compensation Reports Required by State, supplied by insurance carrier.
- 2. <u>Public Liability Reports</u> Required and supplied by the insurance carrier.
- 3. Automobile Accident Reports Required and supplied by the insurance carrier.
- 4. <u>Cow Bay Contracting</u> 's <u>Loss Report</u> For all accidents other than 1, 2, or 3. Required and supplied by Cow Bay Contracting.

Safety and Site Controls

Safety Policy A-5

ACCIDENT REPORTS AND MEDICAL AID

1. INSURANCE COVERAGE

Insurance coverage has been arranged for your job. Any questions regarding this coverage should be referred to Cow Bay Contracting Safety Director. The Insurance Carrier supplies notice of insurance coverage for posting, Safety posters, sign and Safety consulting service. The Superintendents <u>must</u> use this service.

2. FIRST AID

- A. Procedure Set up with the Insurance Carrier a definite procedure for treatment of injuries. The Superintendent must be sure the staff knows where to send injured for treatment and is responsible for their adequate care. Consult with the Insurance Carrier regarding compensation laws concerning employees' choice of doctor. Emergency first aid may be rendered under the direction of any New York State licensed physician or nurse. All charges, properly identified, should be sent to the Insurance Carrier.
- B. <u>Certification</u> At least two members of Cow Bay Contracting job staff must be qualified in first aid and CPR, and have valid (current) certification.
- C. <u>First Aid Supplies</u> First Aid kits and stretchers are required on all projects. These may be obtained from Cow Bay Contracting Shops or various other sources. The kits contain no material for treatment of eye injuries except eyewash. This may be used at the injurer's own discretion and be so advised. JOB STAFF MUST NOT TREAT EYE INJURIES.

3. ACCIDENT REPORTS

A. General Requirements

All accidents resulting in injury or property damage must be reported on the proper forms.
 This includes reporting under the requirements of the Federal Occupational Safety and
 Health Act. NOTIFY THE BUSINESS UNIT SAFETY DIRECTOR AND THE
 PROJECT EXECUTIVE IMMEDIATELY by phone or telegram of death, serious injury,
 or extensive property damage, supplemented with a full written report.

Safety and Site Controls

Safety Policy A-5

3. ACCIDENT REPORTS

A. General Requirements (continued)

- The Superintendent is responsible for proper preparation of accident reports. If the Superintendent delegates this to an assistant, the Superintendent <u>BE SURE THE</u> <u>ASSISTANT HAS READ AND FULLY UNDERSTOOD THESE INSTRUCTIONS.</u>
- In addition to the number required by our Insurance Carrier, Cow Bay Contracting Safety
 Director requires two copies. Any questions regarding the state jurisdiction should be
 referred to our Insurance Carrier.
- 4. Reports must be complete so that the injured receives all the benefits to which they are reasonably entitled and to protect Cow Bay Contracting from any unjust claims.
- 5. SUPERINTENDENTS MUST INITIAL THE JOB AND BUSINESS UNIT SAFETY DIRECTOR'S COPIES.
- 6. Serial Number In the <u>upper right hand corner for all accidents</u> and injuries show the contract number and then the accident number. Example: Accidents occurring on the 4 Union Square Project, Contract #1, would be numbered 1-1, 1-2, 1-3. All reports must be numbered consecutively regardless of type, i.e., injury, property damage, fire, theft, etc.
- 7. Legal papers and services, attorney's letters, notices of lien, and other accident claim-related papers received by the projects or offices must be transmitted with the proper serial number noted and without delay to the Insurance Carrier and Cow Bay Contracting Safety Director. Such papers served in Cow Bay Contracting or other offices shall be forwarded to Cow Bay Contracting Office servicing the accident locale to determine if the papers represent a new claim, and if so, a serial number (in the same sequence as all project accidents) assigned; if an existing claim, the papers should be transmitted by registered mail return receipt requested, to assure a record of delivery.

Notices of examination before trial, court appearances or production of trial records will be transmitted to Cow Bay Contracting Office for compliance.

Safety and Site Controls

Safety Policy A-5

3. ACCIDENT REPORTS (continued)

B. Worker's Compensation

Compensation laws require reports of death or injuries (major and minor) be submitted
within specified time limit. Consult your Cow Bay Contracting Safety Director concerning
this.

AVOID PENALTIES FOR LATE REPORTING.

2. The Occupational Safety and Health Act of 1970 reporting standards require that the Occupational Safety and Health Administration be notified within 8 hours of the death of a Cow Bay Contracting employee or injury to 3 or more Cow Bay Contracting employees in a single accident requiring hospital care.

<u>NOTE</u>: Contractors are responsible for reporting deaths or injuries of Their employees.

- Contract name and number show on all copies of all written material in the upper right hand corner.
- 4. Where address of Cow Bay Contracting Construction is called for, use job address.
- 5. Social Security Number show alongside of injured if space is not allotted.
- 6. Wages and hours per week for employees on weekly payroll, show hourly wage rate, normal hours per day, and normal days per week. Show "varies" where average weekly earnings are required. For employees on semi-monthly payroll, show actual earnings if \$250 per week or less otherwise shows "over \$250 per week". For employees on monthly payroll, show "over \$250 per week".
- 7. Name and address of doctor must be shown regardless of how the contract was made.
- 8. <u>Date of report</u> should be shown on all reports.
- 9. Delayed reporting should be explained on separate memo.

Safety and Site Controls

Safety Policy A-5

3. ACCIDENT REPORTS (continued)

B. Worker's Compensation

- 10. Description of accident do not make statements when information is second hand. Preface the description with "claimant alleges", "it is alleged", etc. Describe the accident fully including what the injured was doing before the injury. It is important to include pertinent measurements; parts of the body, condition of injured and makes sketches if necessary.

 Above all, stick to the facts.
- 11. Witnesses -secure names and addresses of all witnesses, their occupation and employer even though no space may be shown for this information.
- C. <u>Lost Time Supplemental Reports</u> Injured project personnel not reporting to the <u>next</u> regular work shift are losing time. Supplemental reports and the form required by each State and municipal government agency <u>must</u> be prepared upon their return to work.
- D. <u>Letter Reports</u> In case there is a doubt as to the reliability of the information given, or if the injury might have occurred off the project, or the employee suffers from a condition not caused by the accident (heart attack, etc.) the incident should be reported in writing to our Insurance Carrier, giving full and complete details concerning the injury as well as all information which may be called for on formal reports. <u>ASSIGN A SERIAL NUMBER TO THIS REPORT</u>. Submit two copies to our Insurance Carrier, one for the project, one to Cow Bay Contracting Safety Director. Regular accident forms can be made out from this report at a later date if necessary.
- E. <u>Death From Natural Causes and Sickness</u> Such cases should be reported by telephone to our Insurance Carrier immediately followed by a written report (see item D).
- F. <u>Comprehensive General Liability</u> *(Does <u>not</u> apply to Cow Bay Contracting employees or property.)
 - Public Liability Insurance covers our legal liability for injury or death to anyone*, or damage to the property of anyone*, or damage to the property of anyone* by accident alleged to be caused by Cow Bay Contracting employees or alleged to be caused by Cow Bay Contracting negligence.

Safety and Site Controls

Safety Policy A-5

3. ACCIDENT REPORTS (continued)

- F. <u>Comprehensive General Liability</u>- *(Does <u>not</u> apply to Cow Bay Contracting employees or property.)
 - Contingent Liability Insurance covers our legal liability for injury or death of anyone*, or damage to the property of anyone*, or damage to the property of anyone* by accident caused by our Subcontractors or their employees or arising from supervisory acts or omissions of Cow Bay Contracting when supervising Subcontractor's work.
 - 3. A member of the public who claims bodily injury or property damage or an employee of a Subcontractor injured on the job may sue Cow Bay Contracting. Prompt investigation and reporting of accidents involving injury, property damage (including animals) or injury to employees is very important.
 - 4. Original of such reports is to be sent to our Insurance Carrier and copies to Cow Bay Contracting Safety Director.

G. Automobile Insurance

- Covers our legal liability for injury or death to anyone (except Cow Bay Contracting employees) or for damage to the property of others arising out of the ownership, maintenance or use of any automobile, truck, or trailer in connection with our business. It also covers Cow Bay Contracting owned autos and trucks for fire, theft, and other physical damage, except collision. We do <u>not</u> have collision insurance.
- When a Cow Bay Contracting vehicle is involved in an accident, promptly report to our Insurance Carrier on an automobile accident form with copies to Cow Bay Contracting Safety Director.

Safety and Site Controls

Safety Policy A-5

3. ACCIDENT REPORTS (continued)

H. Property Insurance

- Covers the loss or damage to the building, including materials, tools, supplies, and
 equipment incidental to its construction and which are the property of the Owner and Cow
 Bay Contracting. Also covers any other property for which Cow Bay Contracting is
 responsible.
- 2. A Loss Report is to be prepared when damage or loss occurs from fire, windstorm, explosion, riot, water damage, collapse, upset, collision, robbery, burglary, theft, and similar occurrences to property defined in Item H-1. A serial number in the same sequence as all job accidents must be assigned.
- 3. If damage or loss defined above occurs, notify public authorities (fire, police) and Owner as circumstances indicate and secure property from further loss or damage.
- 4. Complete Loss Report 15 in quadruplicate and distribute as required by instruction on back of form. PROMPT ACCIDENT REPORTING IS REQUIRED.
- 5. All costs for repairs, restoration or replacement of the damage will be accrued by the job. Back-charges related to safety violations will be accounted at the project level.
- 6. The Cow Bay Contracting Accounting Department or the Cow Bay Contracting Insurance Department will issue instructions regarding the procedure for handling claims for these types of losses.

4. OTHER REPORTS

A. Wage Data

Requests for wage statements shall be referred to the Project Executive. This person will process requests, periodically requiring wage tabulations or other appropriate action.

Safety and Site Controls

Safety Policy A-5

4. OTHER REPORTS (continued)

B. Cow Bay Contracting Monthly Accident Report

A summary report of all Cow Bay Contracting job accidents must be prepared each month. Submit the original and one copy to Cow Bay Contracting Safety Director with one copy to the Project Executive. Submissions will coincide with payment request cycles. Be sure to include all types of occurrences on this form (bodily injury, property damage, theft, fire, etc.).

C. OSHA Requirements

Supplementary record and summary of Occupational Injuries and Illnesses (OSHA Form 200) must be kept in accordance with the record-keeping requirements of the Williams-Steiger Occupational Safety and Health Act of 1970. All records of training as required by specific OSHA standards shall be kept by Cow Bay Contracting Safety Director and a copy in the job file.

5. **GENERAL INFORMATION**

Damages to Employees' Personal Property

When eyeglasses, dentures, etc., are damaged in a work related accident, consult our Insurance Carrier Claims Department regarding coverage for reimbursement.

Payment of Wages During Treatment of Injury

- 1. Employees whose injury causes lost time should be paid to the end of the regular Work shift on the day of the injury.
- 2. Employees should be paid during the time necessary to obtain medical treatment during working hours with the approval of the Superintendent.

Notices of Hearings, Compensation Awards

All notices of hearings, awards, etc., sent to the job must be promptly forwarded to Cow Bay Contracting Safety Director. All compensation checks should be sent to the injured by our Insurance Carrier.

Safety and Site Controls

Safety Policy A-5

5. **GENERAL INFORMATION** (continued)

Employees of Subcontractors

- Cow Bay Contracting Subcontractors shall carry and furnish evidence of Worker's Compensation, General Liability, and Automobile insurance before performing any work on the job.
- 2. Any injury to a Subcontractor's employee involving Cow Bay Contracting employees or equipment should be reported to our Insurance Carrier on a Public Liability Report.
- 3. Any serious injury or death to a Subcontractor's employee should be reported immediately to Cow Bay Contracting Insurance Carrier(s) on a Public Liability Report.

If the Subcontractor has no employees, but is an individual or partnership, submit a letter report to our Insurance Carrier if the individual is injured.

Subcontractors are responsible for their own employees under the requirements of OSHA.

In any case of doubt in any situation, call Cow Bay Contracting Safety Director.

Safety and Site Controls

Safety Policy A-5

COW BAY CONTRACTING ACCIDENT INVESTIGATION PROGRAM

"RESPONSIBILITY AND PROCEDURE FOR ACCIDENT REPORTS"

Injury, Accident and Loss Report Instructions are included as a part of Safety Policy A-. It is to be reviewed by the Superintendent at the start of each job. The Superintendent must review all reports to see that the information is complete and understandable. In the case of serious accidents, Superintendents should personally investigate and prepare the report.

Safety Policy A-5 covers the reporting of injury, property damage and/or property loss to any person employed by Cow Bay Contracting, its Subcontractors or the public. Subcontractor is intended to mean any contractor working under Cow Bay Contracting inspection supervision and/or direction, whether under contract to Cow Bay Contracting or the owner as on Construction Management. It will be used on all projects at all times - General Contracts, Construction Management Contracts, Consulting Contracts, SPD and miscellaneous projects for reporting Cow Bay Contracting liabilities.

The preparation of Accident Reports should not be delegated to inexperienced personnel. The Superintendent should assign this duty with some training as to the information required. The Safety Coordinator is especially helpful at the start of the investigation.

Purpose

Accident Investigation is carried out in order to determine the cause or causes so that appropriate action can be taken to prevent reoccurrence and to protect our interests in case of litigation. <u>All</u> accidents must be investigated rather than only those involving serious consequences, since severity is largely a matter of chance.

When Should An Accident Be Investigated?

Accidents should be investigated as soon as possible after they occur, while the facts are still clear in people's minds, and interest is high in instituting corrective measures. A prompt investigation reflects management's concern for workers.

Safety and Site Controls

Safety Policy A-5

"RESPONSIBILITY AND PROCEDURE FOR ACCIDENT REPORTS"

When Should An Accident Be Investigated? (continued)

Getting to the scene of an accident promptly is extremely important. In all cases, after the accident has happened and time passes by, it becomes more difficult to obtain facts accurately. Conditions change quickly in many types of accidents, such as those involving explosions or fire. Prompt investigation improves the likelihood that the accident won't reoccur due to the same faulty procedures or environmental conditions.

Accidents are rarely caused by a single factor, but rather by the coincidence of several conditions or events.

The real purpose of accident investigation is to gather information that can lead to *improved* Safety and health conditions in the work environment.

Safety and Site Controls

Safety Policy A-6

SAFETY AWARDS

Each year Cow Bay Contracting recognizes Safety performance by its staff. Cow Bay contracting field staff will be recognized by three classes of Safety awards, defined below. Candidates for Class "1" awards must be recommended by their Project Executive; Class "2" and "3" by their Superintendent and Project Executive. The contribution and performance of each candidate during the year must be clearly and concisely stated, and must be approved by both Cow Bay Contracting General Manager and Safety Director. Additional awards may be made at the discretion of Cow Bay Contracting Safety Director.

CLASS "1" AWARDS

This award will be made to the Superintendent whose performance throughout the year has been outstanding from the standpoint of Safety. His record must show that the project has been pre-planned and organized to minimize risks to employees, property and the public. A Superintendent's Safety evaluation score must not be less than Cow Bay Contracting average (of all Superintendents). Consider also reports from insurance carriers, original or innovative ideas resulting in safer work practices or methods and, most importantly, the respect for Safety the Superintendent imparts to employees by personal influence and general attitudes.

CLASS "2" AWARDS

Awards will be made to field staff (Assistant Superintendents, Engineers, Field Engineers, Accountants, and others) that has been most effective during the year in promoting Safety. These candidates must have displayed by their actions and attitudes awareness of our responsibilities to provide a safe and healthful work environment for all employees.

CLASS "3" AWARDS

Awards will be made to Foreman whose work has contributed effectively toward preventing accidents. Candidates must have demonstrated a continuing interest in Safety by providing training in the recognition of hazards and how to abate them. They must have shown alertness to the correction of hazards to and created by other trades, and effectiveness in the prevention and correction of unsafe work practices.

Safety and Site Controls

Safety Policy A-7

FEDERAL, STATE AND LOCAL SAFETY AND ENVIRONMENTAL REGULATIONS

Most states and many municipalities have adopted Safety and environmental regulations, some of which are advisory; however, most (including the Federal Occupational Safety and Health Standards for Construction) have the effect of <u>law</u>. Violations are punishable, even to the possibility of criminal prosecution of the individual, putting Cow Bay Contracting in a vulnerable position with respect to legal actions involving negligence.

Before the start of any job, the Project Executive and the Superintendent must obtain copies and become thoroughly familiar with local, state and federal regulations (OSHA).

Subcontractors are also required to adhere to all Safety requirements. Superintendents should be sure that Subcontractors are aware of and follow the sections of the regulations applicable to their work. Subcontracts contain an accident prevention clause that calls for compliance with federal, state and local rules.

Each project must have on site a copy of the OSHA Construction Standards (29 CFR, 1926), the Project Safety, Fire Prevention, and Hazcom Programs, and a copy of Cow Bay Contracting Safety Policy.

Safety and Site Controls

Safety Policy A-8

FIRST AID KITS

OSHA requires first aid kits on all job sites. Further, we are required to have at the job site, 2 employees who are trained and certified to administer first aid and CPR. Kits may be obtained from Cow Bay Contracting Shops or various other sources, including companies who will provide follow-up service to kits purchased from them by inspecting on a pre-arranged schedule, replacing items used and charging only for the items replaced. Contact your Safety Director for assistance and/or recommendations.

OSHA further requires a weekly check of first aid supplies. The attached form should be placed in, or posted near, first aid kits. This weekly check will be the responsibility of the Safety Coordinator.

Treatment of Eyes

No material for the treatment of eye injuries is included, except eyewash. This is offered to an employee who has dust or similar foreign matter in his eye to be used at his own discretion, and so advised. The job must <u>NEVER</u> treat eye injuries - always refer such injuries to a competent physician.

NOTE!

Construction is exempt from the Federal Blood Borne Regulations; however, OSHA requires that workers be knowledgeable of this subject. This training can be obtained with routine first aid classes from the American Red Cross.

Every project should include a face shield, mask, and latex gloves in its first aid kit so no one comes in contact with the victim's fluids.

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Safety and Site Controls

Safety Policy A-9

TRAINING REQUIREMENT

Training is vital to an effective Health/Safety/Environmental Program. The objectives include education about rules and regulations; raising an employee's awareness; modifying employee behavior; Safety management skills; and creating a proactive - positive attitude. Certain specific training is required by State and Federal OSHA regulations and Cow Bay Contracting policy A-l sets forth the minimum levels of training at the project site. Cow Bay Contracting also includes H/S/E/ training in their "World Class Training" curriculum including new hires.

Effective training can be done in many formats including meetings, seminars, tool box talks, one-on-one, written materials, videos, on-the-job, etc. While certain training must be conducted by instructors that are authorized by the, everyone can and should contribute, and in fact, does contribute by their actions in a positive or negative way.

Our goal is that all field personnel will receive at a minimum the equivalency of a 10-hour OSHA course as well as First Aid/CPR Training.

All training should be documented by minutes, attendance sheets, testing results or other means. This documentation will be maintained by Cow Bay Contracting Safety Director for Cow Bay Contracting personnel and the project files for subcontractors.

Safety and Site Controls

Safety Policy B-1

GASOLINE AND ELECTRICAL HAZARDS

ELECTRIC POWER

Electricity flowing in well-designed channels like insulate copper wires, is harmless but let it flow through the human body and dire results may follow.

Low voltage (120 volts or less) does not eliminate danger of <u>severe</u> shock. The nature of contact, duration of exposure and resistance of body are all factors determining severity of shock. Muscular spasm, like a hand that can't let go, often prolongs exposure. Damage to tissue depends on length of exposure to the current. If the body is well grounded, like that of a man standing on damp ground or in wet concrete, there is extreme vulnerability.

Ground Fault Circuit Interrupters (OSHA 1926.404b)

All 120 volts single-phase 15 and 20-ampere receptacle outlets which are not a part of the permanent wiring of the structure and which are in use by employees shall have approved GFCI's.

Electric Tools (OSHA 1926.404f.7.IV

Portable electric tools like saws, hammers, drills, vibrators and float machines are hazardous. It is vital that dead metal parts (those not designed to carry current) be grounded.

Parts are grounded only when connected to the earth by wire or cable. If by chance that part becomes electrified, current will flow to the ground; not through the hand that touches it.

Electric tools should carry a Certified Test Facility Label. Single-phase motors should have three-wire cable, two for current to motor and on (insulation GREEN) connected from motor casing in a suitable ground. Three-pronged locking connectors should be used on extensions that carry a third or ground wire. Three-phase current requires fourth wire for grounding. This ground is connected to outlet of temporary wiring system which itself must be grounded to a water pipe or copper rod driven into the earth.

Safety and Site Controls

Safety Policy B-1

GASOLINE AND ELECTRICAL HAZARDS (continued)

ELECTRIC POWER (OSHA 1926.400)

Electric Equipment (OSHA 1926.404f)

Heavy stationary electric equipment, such as hoist motors and starters, are usually self-contained and housed in the engineer's shanty; hence hazard is confined and limited. As in case of tools, dead metal parts like housings, boxes and hoist frames must be grounded.

Extension Cords (OSHA 1926.405a,2.II.j)

Tough weatherproof insulation is necessary to withstand heavy abuse. Wheelbarrows and buggies, bricks and nails, sharp edges and kinks, oil and grease, all give them a hard time and severely limit useful life.

Short circuits from bared or cut wires may cause shock or fire. Be sure all lines are fused so that circuits may be broken quickly.

All extension cords and temporary wiring shall be maintained at least 6'6" above the ground or floor. Where this is impossible, these items must be protected from damage. Inspect often; where damage occurs, repair or dispose.

Temporary Wiring (NFPA 70-1971, ANSI C1-1971)

So it does not eventually become so complicated that no on knows which wire is which, plan your wiring system in advance. You can't foresee all the dark spots but you can tell generally where power and light will be needed. A skeleton layout to start with will eliminate trouble later. Go over your layout with your electrician. Get his suggestions but satisfy yourself that the system is properly fused and grounded.

Temporary lighting must never be put on the same circuit as temporary receptacles. A problem in the receptacles circuit could cause lights to go off creating a Safety hazard.

Safety and Site Controls

Safety Policy B-1

GASOLINE AND ELECTRICAL HAZARDS (continued)

GASOLINE POWER

Chief gas engine hazards are fire and fumes.

<u>Fire</u>

- 1. Most city fire departments have regulations regarding quantity and mode of handling gasoline. Two or three drums are usually the limit of above ground storage. The following rules will minimize the danger from fire:
 - 1. Get regulations from local fire department and follow them.
 - 2. Use Safety bungs and faucets in your drums. These are equipped with perforated cylindrical screens which act as fire baffles. The bung permits breathing and the screen on the spigot filters the gas.
 - Use only OSHA approved Safety cans for filling engine tanks. (Automatic closer and flash arrestors)
 - 4. Shut down engine when refueling:
 - Have a 20 pound ABC dry chemical type extinguisher available wherever flammable liquids are handled.
 - 6. No smoking near gasoline.
 - 7. All drums shall be properly labeled as per OSHA 1926.59 Hazard Communication.

Fumes

Gas engines exhaust carbon dioxide and carbon monoxide. One is poisonous and the other is deadly. Dioxide is heavier than air. Monoxide is slightly lighter.

Mixture usually goes down although heat may cause rise. Both are without color, taste or smell. Light concentrations cause headache and nausea. Death is swift in heavy concentrations. A few minutes may be too long. Don't discount this hazard.

Do not run gas engines in pits, manholes or confined spaces without positive ventilation. Always pipe gas engine exhausts to outside air when engine is located in enclosed space. Start blower before engine. If engine stops, be sure space is well blown out before sending anyone in to restart. If in doubt, check for gas with CO Tester.

Danger spots are deep excavations, pits, manholes, hoist engineers' shanties, pipe or crawl spaces under basement floors, also where gas heaters are used.

Safety and Site Controls

Safety Policy B-2

OXY-ACETYLENE BURNING AND WELDING

REFERENCE: Occupational Safety and Health Administration, Safety and Health Regulations for Construction, Subpart J, Paragraph 1926.350, ANSI Safety Standards for Welding and Cutting and State Safety Standards. Compliance of these minimum standards is required.

USE OF OXY-ACETYLENE CUTTING FLAME

The task of cutting metal with an acetylene flame should be assigned only to experienced employees. Tinted goggles must be worn at all times while cutting. Fire-resistant gauntlet gloves should be worn. Woolen clothing is preferable to cotton because it is not easily ignited and protects workers against changes in temperatures. Outer clothing should be free from oil or grease and of fire-resistant material. Sleeves and pockets should be kept buttoned. High top shoes and fire-resistant leggings or high boots should be worn.

Particular attention should be given at all times to the hazard of fire. Fires may be started by the flame itself, from the metals being welded or cut, from molten slag or metal that is blown or drips from the weld or cut, and from sparks that fly from the work. It is important to provide some means of catching sparks and slag when cutting or welding in the vicinity of flammable materials or persons. Portable, hand-operated fire extinguishers should be kept close at hand at all times.

Acetylene should <u>never be used at a pressure of more than 15 pounds per square inch</u>, as it is likely to explode above this pressure.

HANDLING STORAGE OF CYLINDERS OXYGEN

- 1. Compressed oxygen plus oil is explosive. Allow no oil or grease of any kind to come in contact with valve, regulator or any other portion of the cylinder or apparatus.
- 2. When shipping empty oxygen cylinders to distributors, lower portion of the green tag attached to cylinder should be removed at the perforated line. Any green sticker label found pasted to the cylinder should be removed. Bill of lading should specify that the cylinders are empty and serial numbers of the cylinders should be noted thereon.

Safety and Site Controls

Safety Policy B-2

HANDLING STORAGE OF CYLINDERS OXYGEN (continued)

- 3. Cylinders of oxygen except those in actual use or required for the day's supply, should be stored in a place where they will not be tampered with by unauthorized persons.
- 4. Oxygen cylinders should be stored in a safe, dry place where they will not be exposed to the heat of stoves, radiators, furnaces or the direct rays of the sun. Heat will increase the pressure and it may cause the Safety plug or disk to melt or blow, thus allowing oxygen to escape, resulting in waste. If the escaping oxygen comes in contact with even the smallest flame, it has such a tremendous influence upon combustion that a quick raging fire is likely to result.
- 5. Cylinders of oxygen should never be stored in the same room used for the storage of calcium carbide, cylinders of dissolved acetylene or other fuel gases, or with acetylene generators.
- 6. Open flames of any description should not be employed in any building used for the storage of oxygen cylinders.
- 7. If cylinders are stored on the ground or open platforms, such locations should not be adjacent to points where there is a large amount of combustible material.

<u>Note</u>: While oxygen itself will not burn, its effect in aiding combustion, once a blaze is started, makes it important that rules 4 to 7 inclusive be carefully observed.

ACETYLENE

- 1. When cylinders of dissolved acetylene are not in use, outlet valves **should be kept tightly closed** and valve caps replaced, even though cylinders may be considered empty.
- 2. Cylinders should be stored in a safe, dry, well-ventilated place where they will not be unduly exposed to the heat of the stoves, radiators, furnaces or the direct rays of the sun. Heat will increase the pressure or it may melt the fusible Safety plug with which most cylinders are provided and which melts at a temperature of approximately 212 to 220 degrees Fahrenheit.

Safety and Site Controls

Safety Policy B-2

ACETYLENE (continued)

- 3. No open flame, grinding tools or spark emitting devices should ever be used within the storage building or compartment, and all artificial lights should be incandescent electric. Electric light switches, telephone and all other apparatus which may cause a spark should be located on the outside of the building. All lamps should be enclosed in vapor proof Marine type globes.
- 4. Cylinders of dissolved acetylene should always be stored standing upright with valve end up.
- 5. When shipping empty dissolved acetylene cylinders and other fuel gas cylinders to manufacturers, lower portion of red shipping tag attached to cylinders should be removed at the perforated line. Any red sticker label found pasted to a cylinder wall also should be removed. Bill of lading should specify that the cylinders are empty, enumerating the type and individual numbers of such cylinders.
- 6. Under no circumstances should an attempt be made to transfer acetylene from one cylinder to another or to compress acetylene into a cylinder. This work to be performed only by acetylene charging plants, and under conditions, which comply with Interstate Commerce Commission regulations.

GENERAL

- 1. When transporting, moving and storing compressed gas cylinders, valve protection caps shall be in place and secured.
- 2. When oxygen and acetylene cylinders are hoisted, they shall be secured on a cradle, sling board or pallet. They shall not be hoisted or transported by means of magnets or choker slings.
- 3. Cylinders shall be secured in an upright position at all times. Oxygen and acetylene cylinders not in use must be separated by 20' or a 1/2 hour fire rated wall.
- 4. Cylinders should be handled carefully, never should be dropped, and should be placed so they will not fall or be struck by other objects. Knocks, falls or rough handling are likely to damage the cylinder, valve or fuse plug, and may cause leakage or even result in an explosion.
- 5. Partially used cylinders must be closed at the valves; it is possible for hoses to have minute leaks.
- 6. When exhausted, cylinders should be returned as rapidly as practicable to the storage building or place, and from they're to the manufacturer. Empty cylinders should be marked "Empty" and stored apart from full cylinders to prevent confusion. Valves should be closed and valve protection caps replaced.
- 7. Carts should have fire extinguishers attached.

Safety and Site Controls

Safety Policy B-3

ELECTRIC WELDING

REFERENCE: Occupational Safety and Health Administration, Safety and Health Regulations for Construction, Subpart J, Paragraph 1926.351, ANSI Safety Standards for Welding and Cutting and State Safety Standards. Compliance of these minimum Standards is required.

There are a number of hazards connected with electric or arc welding, but they can be safely handled when ordinary precautions are taken.

Electric Shock - The welding voltage in most cases is low, but with good contact it is sufficient to kill.
 THE FRAME OF A PORTABLE WELDING MACHINE OPERATING FROM AN
 ELECTRIC POWER CIRCUIT SHOULD ALWAYS BE GROUNDED. Switching equipment for shutting down the welding machine should be provided on or near the welding machine.

The electrode holder and connecting cable should be fully insulated. Light holders should not be used for heavy work, and welders should avoid standing on damp or wet surfaces while welding. All equipment should be checked regularly to make certain that electrical connections and insulation on the holders and cable are in good order. Electricians, not welders, shall perform electrical repairs and maintenance work on welding machines.

2. Hot Sparks and Slag/Injury and Fire - It is important to provide some means of catching sparks and hot slag. Wherever possible, a screen should be placed around the welder to protect others from burns, eye injuries from the arc flash, and fire hazards.

Where welding or cutting has to be done in the vicinity of combustible material, special precautions must be taken to make certain that sparks do not reach such material and start a fire. If the work cannot be moved, exposed combustible materials should be covered with fire retardant material or sheet metal during welding operations. Tanks, drums, and pipelines that have contained flammable liquids should be cleansed of all solid or liquid flammable material and purged of all flammable gases and vapors before welding operations are started.

Safety and Site Controls

Safety Policy B-3

ELECTRIC WELDING

Hot Sparks and Slag/Injury and Fire (continued)

Wood floors should be swept clear before welding or cutting operations are started. In some cases, it is advisable to wet down area where slag will fall.

On construction work, much welding is done in the field with portable equipment and many times under adverse conditions. Duck-boards, flame-proofed tarpaulins, extra goggles and shields, and fire extinguishers should always be sent out with the welding equipment.

Portable hand-operated fire extinguishers should be kept close at hand at all times.

- 1. <u>Light Rays</u> Eye burns may be caused by exposure of unprotected eyes to the ultraviolet rays of the arc. The reflections of the arc can be nearly as dangerous as the arc itself. Danger to the welder can be avoided by seeing that he uses the proper shade of tinted glass in his shield.
- 2. <u>Tripping Hazards</u> On large jobs, there is apt to be a considerable amount of loose cable lying around. Welders should be taught to keep this cable in an orderly fashion and away from places where it could cause a stumbling hazard or become damaged. Where possible, it should be strung overhead high enough to permit free passage of vehicles and persons.

Cables should be kept dry and free from oil and grease. They should be arranged in such a manner that they do not lie in water, in oil, in ditches, or on bottoms of tanks.

Electric stubs on the ground or floor are also a tripping hazard. They should be placed in containers provided for this purpose.

Safety and Site Controls

Safety Policy B-4

FIRE HAZARDS AND PREVENTION

The control of fire hazards and the reduction of losses from fire rely on fundamental principles.

- 1. Fire prevention.
- 2. Early detection and extinguishment.
- 3. Damage control.
- 4. Prevention of injuries.

The proper design and use of fire resisting materials is necessary in both permanent and temporary work. The use of electrical tools, oxygen, acetylene, flammable gases, welding equipment gasoline and combustible materials on projects present fire hazards. Compliance with OSHA Safety standards can reduce the risk.

Suitable fire-fighting equipment, used immediately, can stop almost any fire but it must be available and someone must use it. That is why facilities for the quick control of fire should always be on hand, employees be taught fire prevention and to act quickly in the event of fire.

TYPES OF FIRE

The Underwriters Laboratory classifies fires by three general types of extinguishing agents.

<u>Class A Fires</u> - Fires in ordinary materials such as wood, paper, excelsior, rags and rubbish. The quenching and cooling effects of water or solutions containing large percentages of water are of first importance in these fires.

<u>Class B Fires</u> - Fires in such flammable liquids as gasoline, oil and grease require smothering action. Solid streams of water are likely to spread the fire (under certain circumstances water fog nozzles may prove effective).

<u>Class C Fires</u> - Fire in or near electrical equipment must be smothered by using a non-conducting agent such as carbon dioxide or dry chemical compounds.

Safety and Site Controls

Safety Policy B-4

FIRE EXTINGUISHMENT

Fire extinguishment is usually accomplished by three methods:

- 1. Eliminate oxygen from the air. Replace air with an inert gas. Apply a non-combustible cover or a chemical which will dilute the oxygen below point of combustion.
- Remove or shut off the fuel supply. Divert or shut off valves in liquid or gas fuel supply lines and remove the burning fuel.
- 3. Reduce the temperature below the ignition point. Cool the burning material with water or chemicals.

While the use of one or more than one method generally produces better results, it is important that the most effective method be employed <u>first</u>. For example, a fire in a small flammable liquids' pump room can best be controlled by shutting off the supply. The fire will then quickly burn out by smothering itself from using up the oxygen in the room.

FIRE PREVENTION PLANNING

Risk of fire during building construction is considered severe by insurance carriers, usually because of lack of fire-fighting facilities, the presence of combustible material and poor control of heat sources.

The planning of general fire prevention is an important duty of the Superintendent. Each job requires different handling. If the Owner has existing fire extinguishing facilities it may be possible to make arrangements for their use. Once the fire equipment is set up, the Superintendent should assign its maintenance to certain responsible members of the staff. Further he should periodically check the availability and condition of equipment, possibilities of new risks, and reassignment of responsibilities as staff changes occur.

Suggestions to minimize the risk of serious fires are listed below:

1. Job Office and Construction Shanties

a) Where possible, separate shanties so loss of one will not mean loss of all.

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Job Office and Construction Shanties (continued)

- b) Use fire resistant sheathing such as sheet rock, etc., instead of wood siding.
- c) Clear out underbrush for 50' in all directions around buildings and combustible materials.
- d) Insulate stoves and flues carefully especially when flues go through walls and roofs. (See Stoves)
- e) Construct a <u>fireproof vault</u> for job records.
- f) Store fuel oil in open area.
- g) Provide portable and automatic fire <u>extinguishers</u> in convenient locations (See Fire Extinguishers). Provide water lines with hose on large projects.
- h) Make sure electric wiring is properly installed in conduit or BX cable and make **periodic** check of temporary wiring and connections.

2. Water Supply

- a) If possible, temporary water lines should be large enough and provided with hose connections to which fire hose could be attached at convenient points. Use 1-1/2" hose with 3/4" or 1/2" nozzles as they are easily handled by untrained fire fighters. See that hose is kept in good condition and protected from weather.
 - b) Superintendent should see that proper <u>access roads</u> are available for the local Fire Department equipment at all times.
- c) If <u>fire plugs</u> are installed were sure fittings are the proper ones to take local Fire Department's equipment.
- d) Water <u>barrel</u> and <u>pails</u> are essential in isolated locations not protected by water lines.
- e) Provide 5-gallon hand pressure pumps in suitable locations.

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Water Supply (continued)

- f) Where water is to be pumped from a nearby <u>stream or pond</u> be sure equipment can be driven close to water. Suction hoses are usually not more than 10 feet long. Caution: The vertical lift of the water should not exceed 10 feet.
- g) If pressure is inadequate on temporary lines, a **booster pump** may be necessary especially on multi-story buildings. (See Tall Buildings)

3. Temporary Electrical Equipment)

- a) Provide adequate semi-permanent installation for temporary electric service, properly fused, insulated and with sufficient circuits. Do not use power equipment on lighting circuits. Keep wires away from steel, off the floor and out of the way of employees and equipment. Provide proper receptacles and outlets. Do not permit makeshift cords. Ground all equipment. Electrical work shall comply with the current National Electric Code.
- b) Welding crews- Employers shall provide fire extinguishers and non-burning curtains. Welders are notoriously careless about their sparks and Superintendents should insist upon removal or protection of flammable material below them before they work in an area. A fire watch system should be established as all too often the welder is the last person to know sparks from his welding has caused a fire.

4. Winter Weather - Temporary Heat

- a) Only flame-retardant canvas shall be used it will still burn but not so rapidly.
- b) Keep salamanders well away from canvas a high wind may tear the canvas and drop it on the fire. Keep salamanders at least 8' away from wood as radiant heat can start a fire. Never leave them unattended. Provide metal covers and slide shield where necessary. Have a 20-pound ABC extinguisher available.
- c) Keep <u>fuel</u> for kerosene heaters outside the building. Shut the heater down when refilling. Place a 20-pound ABC extinguisher where it can be reached in case of emergency - NOT ON THE MACHINE.

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5. Heaters

- a) Oxygen, acetylene and gas cylinders are potentially as dangerous as small bombs if not properly handled and stored. Store them away from possible shock or excess heat in neat racks. Transport them in properly designed wheel tank trucks.
- b) Various types of space heaters are now in general use. Most of them require electrical connections and many require flues to the outside air. Superintendents should pre-plan heating requirements with the Project Executive.
- c) Roofer's kettles should be placed well away from finished walls and material storage outside the building if possible. Faulty heaters or over-heated kettles can cause severe smoke damage and compensation claims. Make sure kettle fires are really out. A 20-pound ABC extinguisher should be kept nearby. Do not overheat pitch or asphalt. See that a thermometer is used to control temperatures.
- d) Do not let untrained employees handle this type of equipment.

6. Housekeeping

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A clean job promotes efficiency, reduces accidents to personnel and minimizes fire risk (from cigarettes, etc.)

- a) Provide **NO SMOKING** signs in hazardous areas and see they are enforced.
- b) Remove all scrap lumber and rubbish from the building property.
- c) Fold and remove <u>canvas</u> from working area when not in use.
- d) Store <u>combustibles</u> such as paint, flammable materials, cork, lumber, roofing felt, paper and fuels in small piles away from possible fire-starters and protect them. (See Paint and Flammable Materials).
- e) Material storage not permitted within 6' of a ladder, stairwell, aisle or walkway or within 10' of outer perimeter edges of upper floors.
- f) Dispose of <u>combustible</u> cartons, paper, etc. on the same date it is removed from material even if it requires additional workers.

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6. Housekeeping (continued)

- g) Do not store "hard-to-get" items in hazardous locations. Provide special fire protection for them and see they are safely located.
- h) Continually police the job for possible causes of fire.
- i) Post location of the nearest fire <u>alarm box</u> conspicuously.

7. Watchmen

Competent watchmen should be kept on duty at all times when the job is not under the supervision of a regular Staff employee. Watchmen should be selected with consideration to their judgment, reliability and physical strength.

Superintendents should take time to fully acquaint watchmen with their duties and emphasize Fire Detection and Prevention. They should have proper clothing and flashlights, or electric lanterns, in working order. They should not smoke while making rounds. They should be instructed in the use of fire extinguishers, have the emergency numbers list, including Fire and Police Stations, and know location of nearest fire alarm box.

Watchmen are to be trained in fire prevention. This might include the following:

- a) Fire apparatus is in place and not obstructed.
- b) Motors or machines left running are turned off unless they are supposed to be in operation.
- c) Water faucets and air valves are closed and continuous leaks are reported unless purposely left open for draining or to prevent freezing, etc.
- d) Heaters and stoves are checked.
- e) All combustible materials are removed from danger areas.
- f) Oily waste, rags, rubbish are removed or in approved containers.
- g) Hazardous materials are kept in proper containers or are removed.
- h) Doors, gates, windows, skylights, fire doors and shutters are closed.
- i) Guard dogs are not permitted to be used on any construction site.

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7. Watchmen (continued)

If the job is large enough to warrant the use of more than one watchman, routes should be carefully laid out to cover the entire area. Hourly rounds are desirable and should be completed at different times. Watchmen should check on each other for cases of sickness and accident.

Where only one watchman is employed it is desirable for him the watchman to be able to contact some other person at intervals during the night, such as the regular police patrols. Where this is not possible, the Superintendent should be sure the watchman has telephone service available and the emergency numbers list.

In some localities efficient Watching Services are available and should be given consideration by the Superintendent.

8. Access to Hydrants

During building operations free access from the street to fire hydrants and to outside connections for standpipes, sprinklers or other fire equipment, whether permanent or temporary, must be provided and maintained at all times. No material or construction equipment should be placed within 15' of a hydrant or connection nor between it and the center line of the street. Permanent hydrants should be installed as soon as possible and protected.

9. Standpipes

In some states it is required that the standpipes be carried up as the building progresses and hoses supplied on each floor. This is very important to us and should be applied to every building operation. If no standpipe is required by the drawings or, if it is impossible to install while the building is going up, a temporary line should be installed. Both temporary and permanent standpipes must be protected from <u>freezing</u>. Care must be taken to be sure that valves are tight so that seepage and consequent freezing does not occur which would render the hoses useless.

Generally dry standpipes are preferable when local ordinance does not require wet pipe. This avoids freezing and needless water damage. Fire hoses should be kept in good condition, free of water and checked at regular intervals. (See Tall Buildings). Keep hose valves closed.

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FIRE EXTINGUISHERS

Location

Locate in accessible places throughout the building, shanties, store rooms, work areas, and on heavy pieces of equipment subject to fire hazards. Inspect at regular intervals. Keep a record on the extinguisher showing the date of inspection, recharging if required.

Types

Although there are many types of extinguishers, only one type of fire extinguisher is approved for use on Cow Bay Contracting work: the 20 pound "ABC" all-purpose dry chemical extinguisher for use on wood, paper, textiles, electrical and flammable liquids. THE USE OF CARBON TETRACHLORIDE EXTINGUISHERS IS PROHIBITED.

Manufacturer's instructions should be followed for each type of extinguisher. Complicated types of extinguishers should be avoided. Employees should be taught how to operate each type provided so that prompt action when a fire starts can be assured. Care should be used in selecting extinguishers for each job.

The purpose of extinguishers should be discussed with job management and Owner's representative before final selection is made. Consult Cow Bay Contracting Safety Director for the use of types of fire extinguishers other than those recommended above.

Extinguishers should be stand or wall mounted, visible and easily accessible at all times.

PAINT AND FLAMMABLE MATERIALS

Flammable liquids are a potential hazard when in sealed original containers and an active hazard otherwise. Consult our Insurance Carrier when large amounts are involved and storage must be in or near other storage rooms. **Volatile flammable liquids** shall be kept in approved metal Safety cans or containers.

All such flammable materials should be stored in separate structures outside the building. An inside storage room should be avoided or be located in a fireproof corner of the building and away from combustibles.

Safety and Site Controls

Safety Policy B-4

SALAMANDERS

Oil fired salamanders are prohibited. Solid fuel salamanders are prohibited within buildings and on scaffolds.

STOVES

Provide fire resistant material underneath and at the sides when near framework. Pipe sleeves or tin coverings should be used where the stovepipe runs through walls or roof. No wood should be within 18" of the flue. Use sheet iron floor plans raised from the floor or a layer of sand or slag confined by 2" strips of wood.

TALL BUILDINGS

The basic fire protection for tall buildings is the standpipe. (See Standpipes). This system provides for vertical pipe risers with hose connections at each floor and one or more Siamese connections at sidewalk level for use of the Fire Department. Risers should be installed as close behind structural steel as possible as there is a definite fire hazard during floor slab form erection. As the riser is installed it is essential to keep the top capped and have all floor valves closed so that water pressure is not lost. Such systems should be inspected by the local Fire Department and be approved at regular intervals.

It is sometimes advisable to install temporary water line as the building progresses upward. Additional valves and adequate fire hose on some of the floors serve as auxiliary fire protection in addition to the temporary water for construction purposes. Booster pumps should be installed to maintain pressure upon floors.

Fire Hose should be stored in a suitable container adjacent to the water line and designated for "Fire Use Only". Spanner wrenches for hose should be provided.

Tall buildings usually have setbacks that serve as convenient storage areas. As stored material must be covered to protect it from the weather, all canvas covering should be of flame-retardant canvas to also protect from cigarettes thrown out of upper windows.

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TALL BUILDINGS (continued)

Quarterly, a review of the building fire facilities should be made with the local Fire Department to familiarize them with the equipment and the status of job construction. Their suggestions are valuable in fire prevention.

MISCELLANEOUS ITEMS

<u>Clothing</u> - Items that have had oil or paint on them should not be left in confined spaces; hand in the open air. Do not permit employees to wear oil soaked clothes.

<u>Concrete Forms and Lumber</u> - Material should be properly stacked and located at a safe distance from construction work and at least 30' away from other combustible material.

Exhausts from gas or oil engines should be carried to the open air.

Unslaked Lime should be stored in a dry place as there is danger of fire when it becomes damp and slaked.

Spark Screens should be provided for hoist engines, salamanders, etc., if near combustible materials.

Safety and Site Controls

Safety Policy B-5

FIRE PREVENTION - SHANTIES

Fires originating in shanties installed within and adjacent to buildings have resulted in severe and costly damage.

In order to reduce the fire hazards on the jobs:

1. All shanties and temporary partitions installed by Cow Bay Contracting and/or Subcontractors within buildings and 10 feet or less from buildings shall be constructed entirely of fire-retardant material treated lumber, steel, masonry or other approved incombustible materials. All glass installed must be wire glass.

Fire retardant treated lumber shall be pressure treated with fire retardant chemicals in accordance with the current American Wood Preserves Association Standards C1, C20 and C27 and shall have a flame spread rating no greater than 25' when tested in accordance with A.S.T.M. Standard E84 with no evidence of the significant progressive combustion when exposed for at least 30 minutes. All fire retardant treated wood shall bear the identification of a testing laboratory or a certification of performance by the producer.

Cow Bay Contracting Safety Director shall approve shanties constructed of incombustible material other than fire retardant treated lumber.

- 2. Where valuable materials or extraordinary fire hazards to property are involved, wood shanties installed more than 10 feet from building shall also be constructed of fire retardant lumber.
- 3. The Purchasing Department will contractually bind the Subcontractors to the contents of the bulletin.
- 4. SUPERINTENDENTS WILL REQUIRE COMPLIANCE WITH THIS POLICY.

Reference Safety Policy B-4

Safety and Site Controls

Safety Policy B-6

LOCKOUT/TAGOUT PROCEDURE

General:

This procedure shall cover the demolition and/or change out of existing active electrical/piping lines under contract.

The intent of this procedure is to limit the danger of the unexpected release of stored or residual energy that could cause injury to employees and/or the public.

This procedure will establish minimum requirements for the control of such hazardous energy. Further requirements may be added as deemed necessary to Cow Bay Contracting.

Cow Bay Contracting Superintendent shall be responsible to control all aspects of the lockout/tag-out procedure. This procedure shall be coordinated with the appropriate trade of the system.

Lockout:

- 1. If a system can be locked out through design or by other means, this will be the preferred method.
- 2. The lockout device shall be substantial enough to prevent removal without the use of excessive force.
- 3. The lock shall be a separately keyed lock for use only with the lockout system.
- 4. The lockout device will be labeled with the supervisor's name and of those exposed to the system being locked out. There shall be one lock for each (including Cow Bay Contracting) exposed to the system.
- 5. The subcontractors shall remove their locks at the end of the shift with Cow Bay Contracting being the last lock removed. Subcontractors shall not leave a lock on past their shift.
- 6. The energy source shall be activated only by the construction or facility designate after all employees exposed to the system being worked on have been informed of the re-activation.

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Safety and Site Controls

Safety Policy B-6

LOCKOUT/TAGOUT PROCEDURE (continued)

Tagout:

- 1. The tag-out system shall only be used if the energy isolation device (i.e., pull box, valve) cannot be locked out. Prior approval by Cow Bay Contracting Safety Director is required.
- Tag-out devices, including their means of attachment, shall be substantial enough to prevent accidental removal.
- 3. Tag-out attachments shall be for on-time use such as an all-environment-tolerant nylon cable tie.
- 4. The tag shall warn against the energizing of the tagged system such as: Do Not Start, Do Not Open, Do Not Close, Do Not Energize, Do Not Operate
- 5. The names of each contractor and designated supervisor shall be displayed on the tag.
- 6. The tag shall not be removed except by the Cow Bay Contracting. Supervisor responsible for the tagging of the system after all exposed employees have been informed of the pending removal of the tag. The designated construction or facility Representative shall activate the system.

Training and Documentation:

- 1. Each employee affected by the lockout/tag-out system shall be trained in this procedure.
- 2. Each employee affected shall be trained in the identification of the lockout/tag-out devices.
- 3. A log shall be maintained on the project identifying the following:
 - a. Date of usage
 - b. Number of the lock(s)/tag(s) used
 - c. Contractors involved
 - d. Time of lockout/tag-out
 - e. Time of lockout/tag-out removal
 - f. Signature of Cow Bay Contracting Superintendent or procedure designee

In the event a lock is left on the lockout device and all affected subcontractors have verified, with the Cow Bay Contracting Superintendent, the removal of this lock, the facility representative and Cow Bay Contracting Safety Director shall be contacted. The abandoned lock shall be removed with the authorization of these representatives.

In the event someone (construction employee) is found tampering with a lockout/tag-out, disciplinary action will be taken.

Safety and Site Controls

Safety Policy B-7

SUBJECT: BATTERY ROOMS AND UPS (UNINTERUPTABLE POWER SUPPLY) SYSTEMS

All Battery Rooms are extremely dangerous and should be treated as such by all Cow Bay Contracting field personnel.

A word about why they are dangerous; typically these rooms contain 2 or 3 levels high of lead/acid type batteries, with a positive and negative post (terminal) and a vent port which is also used to fill the battery with a liquid solution. There are many reasons why batteries "fail" and unfortunately when they do there is usually an explosion! Therefore the danger is to personnel if they happen to be in the room. They can be sprayed with an <u>acid</u> solution that can cause serious skin burns and also loss of vision if the acid solution hits someone's eye. There is also a high probability of fire.

With this in mind, the following Safety measures will be taken: 1) all personnel entering these rooms must wear Eye Protection (i.e. Safety Glasses with side shields); 2) no one is to enter the room alone 3) only personnel aware of the potential dangers shall enter these rooms; and 4) "No Smoking" signs must be posted. We should approach the access to these rooms in the same manner as we treat "confined spaces". Lastly, Cow Bay Contracting personnel should not enter these rooms unless there is a need to do so.

There are also best practice design issues we should look for. There should be an Emergency Eye Wash Station and an Emergency Shower to wash off any acid solution. There should be Two Means of Egress (exits) so that people are not trapped. There should be an Emergency Telephone. There should be a Hydrogen Monitoring Panel with a remote audible alarm that is interfaced with an exhaust system to remove hydrogen gas. New batteries give off high levels of hydrogen when they are initially charged and also when they are re-charged.

Many times in existing facilities work will need to be performed above the batteries (i.e. installing sprinkler piping). The top row of batteries must be properly protected by Trained Electricians Only. Plywood or particleboard should be used and <u>not</u> drop cloths, visqueen, or tarps. Avoid creating sparks including those from static electricity or the use of an open flame since the gas generated by the batteries is highly explosive.

Refer to OSHA regulation 1926.441 for additional information.

Safety and Site Controls

Safety Policy C-1

PROTECTIVE EQUIPMENT FOR PERSONNEL

Employees are exposed to flying material chips, falling objects, heat, light and other hazards requiring special personal protective equipment. Cow Bay Contracting staff and foremen are responsible for issuing personal protective devices. Federal, State and local Safety rules should be checked regarding the use of such equipment. Where available, use only equipment approved by the National Institute of Safety and Health or the U.S. Bureau of Mines. Used personal protective equipment must never be given to an employee without having been cleaned and sterilized. Since projects do not have facilities to sterilize this equipment, new protective equipment shall be issued to each employee for his continued personal use, except as noted hereunder.

Head Protection

<u>Hart Hats</u> - (ANSI Z89.1 - 1981) Hardhats shall be worn by <u>all</u> job employees and visitors and at all times while on the job site as a condition of employment or visitation. Impact resistant hard hats provide protection only when the inside web suspension is intact and is adjusted to correct head size with proper crown clearance. Hard hats may be re-issued when cleaned and re-fitted with new head suspensions.

Eve Protection

Eye protection with side shields and/or one piece goggles are encouraged to be worn by the entire work force and may be made mandatory on specific projects.

Cup type chipper goggles shall be used by workers in heavy breaking or drilling. The clear spectacle type glasses with side shields and/or one piece plastic goggles shall be worn for drilling, cutting, and chipping masonry, concrete, tile, etc. and when operating powered hand tools.

Face shields shall be worn for protection from flying particles produced from light drilling, breaking, chipping and from power saws, and are particularly effective for employees who wear corrective glasses. Adapters for use with hard hats or caps are recommended. Shaded spectacle glasses or shaded face shields shall be worn by employees engaged in oxy-acetylene burning and welding by employees engaged as electric welders' helpers. Shade 7, 8, 9 or darker is recommended.

Welding masks and hoods shall be used by all employees engaged in electric or arc welding. Consult suppliers for the exact shade to match the amperage tube used.

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Safety and Site Controls

Safety Policy C-1

PROTECTIVE EQUIPMENT FOR PERSONNEL (continued)

Hearing Protection

Employees exposed to noise levels of 90 decibels or more shall be provided with and required to wear hearing protection, such as earmuffs or ear inserts.

Respiratory Protection

Employees exposed to dust, fumes, and/or gases must be provided with proper respiratory protection designed to protect against the particular substance encountered. After proper testing and training has been completed Cow Bay Contracting Safety Director shall be notified to ensure Safety regulations are followed.

Hand Protection

Various types of gloves are made to protect hands against particular hazards, i.e., rubber gloves to handle alkalis and other chemicals, leather gloves to handle rough items as reinforcing steel, lumber, masonry, etc., and special leather gloves to protect against welding heat sparks and slag. Require their use as appropriate.

Foot Protection

Foot guards shall be used by all employees to protect their feet from falling objects. Employees working with tampers must wear foot guards. Thin sheet steel insoles are available to protect against nail punctures.

Employees should be encouraged to wear Safety shoes. Soft shoes (sneakers) are never permitted. All shoe soles should be kept in good condition.

Body Protection

Special clothing is required when working with some chemicals such as alkalis very hot, cold or wet work places. Aprons, coveralls, special suits, etc. are some of the items available.

Safety harnesses and life lines shall be used to prevent falls. (See Safety Policy C-3, Special Protection)

Construction employees working in plants in operation (chemical work, etc.) must be provided and wear the specialized protection equipment designed for that particular operation. (Wood-soled shoes, non-sparking tools, chemical goggles, etc.) The owner must be consulted regarding protective equipment required.

Safety and Site Controls

Safety Policy C-2

SAFETY HARNESS, LIFELINES, AND LANYARDS

All Cow Bay Contracting and Subcontractor employees are required to wear Safety harness when working on swing scaffolds, near the edge of within floor openings, at unprotected perimeters and whenever a fall of more than 6 feet could occur.

Lifelines shall be a minimum of 3/4" manila or equivalent secured above the point of operation to an anchorage or structural member capable of supporting a minimum of 5,400 pounds.

Lanyards shall be a minimum of 5/8 nylon or equivalent with a maximum length to provide for a fall of no longer than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

Safety and Site Controls

Safety Policy C-3

PROTECTION OF OPENING AND OPEN SIDES OF FLOORS AND DECKS

Falls of workers from, and workers struck by materials falling from floors and decks of structures during construction are not frequent but are usually severe. The object of this Policy is to present the common methods of worker protection in these two loss areas.

As General Contractors, we normally have responsibility for installation and maintenance of protection. However, in certain instances, responsibility for installation and maintenance of protection is handled through a contractual arrangement with a subcontractor. Frequently, railings and covers must be moved in order for material to be hoisted or to perform other work and then replaced. In either case, procedures and designs to facilitate swift and safe removal and replacement must be developed during pre-job or pre-operational planning and strict enforcement of those procedures required.

The use of metal banding or chains is prohibited as perimeter or other fall protection.

FLOOR AND ROOF OPENINGS

Floor and roof openings must be protected by a standard railing or cover.

Standard Railing

The top edge height of a top rail shall be 42 inches plus or minus 3 inches above the walking/working level. When conditions warrant, the height of the edge may exceed the 45-inch height, provided the guardrail system meets all other criteria.

Note: When employees are using stilts, the top height of the top rail shall be increased an amount equal to the height of the stilts.

Midrails shall be installed between the top rail and the walking/working surface at a height of 21 inches, or half the overall distance.

Toe boards shall be a minimum of 3-1/2 inches in vertical height with only a quarter inch clearance off the floor. There shall be no opening greater than one inch between toe board members.

The top rail shall have a breaking strength of 200 lbs. applied within two inches of the top edge, in any outward or downward direction at any point along the top edge.

Safety and Site Controls

Safety Policy C-3

FLOOR AND ROOF OPENINGS (continued)

Midrails members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail.

Toe boards shall be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or outward direction at any point along the toe board.

For wood railings, the posts must be at least 2" x 4" stock spaced not more than 8 feet apart. The top rail must be of 2" x 4" stock; the intermediate rail shall be at least a one by six board. Toe boards may be a 3-1/2 inch board.

For pipe railings, posts, top rails and intermediate railings shall be at least 1-1/2 inch nominal diameter (schedule 40 pipe) with posts spaced not more than 8 feet apart on centers.

For structural steel railings, posts, top rails and intermediate rails shall be at least 2 x 2 x 3/8 angles, with posts spaced no more than 8 feet apart on centers.

When wire rope is used for guardrails, the cables may be 1/2 inch wire rope, but in no situation may they be less than 1/4 inch steel cable; any coatings used on the cables to prevent cuts or lacerations will be over the 1/4 inch diameter. When wire rope is used for top rails it shall be flagged at no more than six foot intervals with highly visible materials.

Posts shall not be more than 8 feet on center. For cable Safety railings, cables must be looped and double clamped at the connecting points. Single cables running past each other with one clamp are not acceptable.

AT NO TIME WILL ANY GUARDRAIL BE USED TO SECURE A SAFETY BELT OR HARNESS.

For cable Safety railings, cables must be looped and double clamped at connecting points. Single cables running past each other with one clamp are not acceptable.

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Safety and Site Controls

Safety Policy D-1

SCAFFOLD REQUIREMENTS

The following rules are a general rule of thumb on the erection and use of scaffolds.

- a) All scaffolds are to be built by a competent person.
- b) Rolling scaffolds must have the wheels locked while the scaffold is in use.
- c) Tubular welded rolling scaffolds require a horizontal/diagonal brace.
- d) All rolling scaffolds must be fully planked while in use and guard rails with toe boards in place when the scaffold reaches a height of 10 feet.
- e) Baker style scaffolds must follow OSHA 1926.451/(A)(4) and when next to shaft openings and/or windows they must have guard rails at all times.
- f) Properly secured ladder access must be provided for all scaffolds.
- g) Cross bracing does not take the place of a guard rail.
- h) End rails must be part of the guard rail system on all scaffolds.
- i) Scaffolds reaching a height of 26 feet and a width of 30 feet must be properly anchored to the building.
- j) Independent life lines for each worker on a swing scaffold are a must. They must be properly secured to a firm anchorage point.
- k) Scaffolds must not be higher than four times the least base dimension without being tied off to a structure or using outriggers.
- 1) Never erect a scaffold without a proper base, using screw jacks. Never put an open pipe end directly on a wood support, asphalt paving or soil as it may shift during use.

For more information on scaffolds refer to the OSHA Standards CFR 1926.451.

Safety and Site Controls

Safety Policy D-1

SCAFFOLD PLANKING

All planking shall be 2" (nominal) selected for scaffold plank use as recognized by grading rules approved by American Lumber Standards for the species of wood used. The maximum permissible spans for 2" x 10" (nominal) or 2" x 9" (rough) planks are as follows:

WORKING LOAD	PERMISSIBLE SPAN
(11b/ft 2)	ft
25	10
50	8
75	7

- The maximum permissible span for 1-1/4" x 9" or wider plank of full thickness is 4' with medium loading of 50 lb./ft 2.
- Platform planks shall be laid with no openings more than 1" between adjacent planks or scaffold member.
- All planks or platforms in a continuous run shall be overlapped (minimum 12") or secured from movement.
- Wood scaffold planks, unless cleated or otherwise restrained at both ends, shall extend over their end supports not less than 6" or more than 18".
- The use of commercially available aluminum and wood walk boards with positive locking devices is an excellent alternative.

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Safety and Site Controls

Safety Policy D-2

REBAR PROTECTION

During the construction of reinforced concrete building, employees erect forms or perform other duties over exposed vertical or upturned reinforcing bars, bolts, or other protrusions (i.e., conduits/pipes). Serious injuries and deaths have resulted from falls on these protrusions. Also floor slab reinforcing that extends beyond a section of slab in place is an accident hazard.

Employees must not be permitted to work above vertical protruding reinforcing steel unless it has been protected to eliminate the hazard of impalement.

Several methods to protect against this hazard are:

- 1. Empty steel drums placed over the dowels until the column reinforcing is placed. The drums are then moved forward as the work progresses.
- 2. Shallow boxes made from scrap lumber used in the same manner as No. 1 above.
- Plank covers for rows of bond bars.
- 4. "Barguard" or its equivalent shall be placed over each bar.
- 5. 4" x 4" x 4" wood blocks drilled to bar size and used as No. 4 above.

Wire mesh or reinforcing bars extending beyond a section of slab in place must be bent down and secured to eliminate a tripping hazard. Otherwise, employees should be prohibited from walking over the area.

Safety and Site Controls

Safety Policy D-3

JOB MADE LADDERS

The falling hazard of climbing and descending any ladder is serious even under the best circumstances but with job made ladders, this hazard can be compounded by improper fabrication, faulty installation, or use after a ladder or its base or top fastenings have been excessively worn or damaged.

Job made ladders must be tailored to their intended use. Estimate the approximate amount of usage to determine if it will be a single-cleat ladder (see Table 1) or a double-cleat ladder (see Table 2) where, for example, the ladder will provide the only means of access to, or egress from, a main working area for 25 or more workers, or if simultaneous two-way traffic is expected, a double-cleat ladder should be installed. The load carrying capacity of side rails is a function of working length and pitch. The minimum rail sizes for various combinations of length and pitch for single and double-cleat ladders shall comply with tables.

Determine the height the ladder is to reach and add 36 to 42 inches to allow side rails to extend adequately above the top landing to provide a hand hold. Set rails on level, even and solid footing at locations where there will be no danger of being struck by passing vehicles or equipment. Where ladders must be placed in passageways or other thoroughfares, they should be protected by barricades around their base.

The maximum length of single-cleat ladders shall not exceed 24 feet between supports (base and top landing). If ladders are to connect different landings, or if the length required exceeds the recommended maximum length, use 2 or more separate ladders staggered with a protected platform between each ladder. The maximum length of double-cleat ladders should not exceed 24 feet. If ladders are to be used by masons or hod carriers, the length should not exceed 20 feet.

All job made ladders, landings and lashings should be inspected at least every week and any defects should be corrected immediately.

Safety and Site Controls

Safety Policy D-3

METAL LADDERS - A HAZARD ON CONSTRUCTION WORK

PROTABLE ALUMINUM LADDERS and other lightweight metal ladders are household and residential construction tools. They create Safety problems not associated with wood ladders and, on commercial projects, SHALL NOT BE USED ON CONSTRUCTION SITES:

The reasons are listed below:

- 1. <u>Electrical</u> All metal ladders are conductors of electricity and are dangerous to use near electrical tools, equipment and wiring.
- 2. Excessive Temperatures of metal ladders, either from cold or heat, might cause accidents due to the physical reaction to an unexpected condition.

3. Structural

- a) Sharp Edges on channel side rails and treads cause cuts.
- b) <u>Treads</u> On metal ladders are generally slippery. Some types are punched from underside and others are corrugated to increase the friction values but to date no "standard" satisfactory tread has appeared on the market.
- c) <u>Feet</u> The usual hazard at the base of the ladder is also present. On some surfaces such as polished terrazzo or wet concrete, metal feet even when provided with rubber pads, slip easier than the base of a wooden ladder.
- d) <u>Strength</u> Some makes of light metal ladders are not built strong enough to carry construction loads.
- e) <u>Maintenance</u> Small unnoticed bends in the flanges of the rails can result in sudden unexpected failure, possibly causing serious injury.

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Safety and Site Controls

Safety Policy D-4

POWDER ACTUATED FASTENING TOOLS

Each year the 's accident experience has included injuries caused by unsafe use of Powder Actuated Fastening Tools. Generally, two types are available for use on our work, they are high velocity and low velocity types. Fastener driven by both types have approximately equal holding power. The greatest number of serious injuries and fatalities have been from misuse of high velocity tools.

Therefore, to reduce the possibility of injuries, only LOW VELOCITY POWDER ACTUATED FASTENING TOOLS shall be used on Cow Bay Contracting jobs. The stud, pin, or fastener of these tools shall be caused to have a velocity not to exceed 300 feet per second when measured 6-1/2 feet from the muzzle by accepted ballistic test methods.

Superintendents <u>must enforce compliance</u> with local regulations governing the use of the tools with the contents of this bulletin.

The use of Powder Actuated Fastening Tools shall be governed by the following rules:

- 1. Tools must meet requirements of ANSI A10.3-1985.
- Only employees qualified by instructions of the manufacturers qualified representative and/or licensed by the state or local authorities shall be assigned to use a Powder Actuated Fastening Tool.
- 3. Users of Powder Actuated Fastening Tools must wear eye protection.
- 4. Where practical, tools of only one manufacturer shall be used on a project.
- 5. Only cartridges and fasteners supplied by the manufacturer of the tool shall be used.
- 6. Powder Actuated Fastening Tools shall be handled with the same care as fire arms.
- 7. All Safety devices built in the tool by the manufacturer shall be used at all times. A sign, minimum 8" x 10" with 1" letters, stating "Powder Actuated Tool in Use" or equivalent shall be posted in area of use. (ANSI A10.3-1985)
- 8. Horseplay by any Cow Bay Contracting or Subcontractor employee (i.e. pointing an armed tool at anything other than the work, target practice, making Safety devices inoperative, or other unsafe acts, etc.) is not permitted at any time.
- 9. Powder Actuated Fastening Tools approved for use on Cow Bay Contracting
 - a) Piston Tool A Low Velocity type utilizing a piston activated by the poser of a blank cartridge furnished by the Tool Manufacturer to drive a stud, pin, or fastener into a work surface.
 - b) Powder Assisted Hammer Drive Tool A Low Velocity type utilizing a captive piston activated by a blow from a 4 lb. hammer supplemented by the power of a blank cartridge furnished by the Tool Manufacturer to drive a stud, pin, or fastener into a work surface.

Safety and Site Controls

Safety Policy E-1

CRANES AND DERRICKS

Equipment must comply with the American National Standard B30 Safety codes for Cranes, Hoists and Derricks and to the Occupational Safety and Health Standard CFR 1926.550 Subpart N - Cranes, Hoists and Derricks.

Rated Load capacities and recommended operating speeds, special hazard warnings or instructions must be conspicuously posted on <u>all</u> equipment. Instructions or warnings must be visible to the operator.

The supplier and or user must provide the results of the most recent inspection of the entire machine. Copies to be maintained at the jobsite.

Wire rope, its attachments, fittings, sheaves, and Safety devices must be inspected weekly with a copy of the record of the inspection, including a maintenance lubrication check, submitted to the Cow Bay Contracting Superintendent. Inspection must be made by a competent person other than the person who installed, reaved, and attached the wire rope.

Wedge sockets and fittings must be the proper size to match the wire rope and must move to wedge and hold the wire rope under load construction.

All replacement parts must be as specified by the manufacturer.

It is recommended that all Superintendents have a copy of:

- 1. Crane Handbook
- 2. Rigging Manual

Both are available from:

The Construction Safety Association

74 Victoria Street

Toronto, Canada M5C2A5

Good inspection criteria can be found in these books.

Safety and Site Controls

Safety Policy E-2

MATERIAL AND PERSONNEL HOISTS

All hoists must comply with the manufacturers' specifications and limitations applicable to their operation. Where manufacturers' specifications are not applicable, the limitations assigned to the equipment shall be based on the determination of a professional engineer competent in the field. Rated load capacities, recommended operating speeds, and special hazard warnings or instructions <u>must</u> be posted on cars and platforms.

Following assembly or erection of hoists, and before being put into service, an inspection and test of all functions and Safety devices must be made. A similar inspection and test is required following any major alterations. All hoists should be inspected at 3-month intervals. Records must be maintained at the site.

When hoist platform/cage is on upper level, first floor level must be guarded to prevent entry of personnel or storage of material.

Material hoists must conform to the regulations of ANSI A10.5 and personnel hoists to ANSI A10.4.

Contact our insurance carrier and Cow Bay Contracting Safety Director regarding local and state requirements.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION

The OSHA Hazard Communication Standard requires that all employers with employees exposed to hazardous chemicals at their worksite establish a hazard communication program. This program must transmit information to the employees about the hazardous chemicals they are exposed to at the site. This is accomplished by labels on containers, Material Safety Data Sheets (MSDS), hazardous chemical jobsite survey and training programs.

Cow Bay Contracting established a <u>Hazard Communication Program and Staff Guidelines</u> to be implemented on every project.

HAZARD COMMUNICATION PROJECT CHECKLIST

- 1. Establish and implement a written jobsite hazard communication program.
- 2. Conduct an initial jobsite hazardous chemical survey.
- 3. Check that all Cow Bay Contracting jobsite personnel have completed hazard communication training. Contact Safety Director if training is needed. Keep copies of their certificates on site.
- 4. Establish a procedure to obtain from each subcontractor prior to their start of work:
 - a). Their jobsite hazard communication program.
 - b) A list of all hazardous chemicals they will be using on site.
 - c) A description of there labeling system.
 - d) The MSDS's of all hazardous chemicals they use on site.
- 5. Post at the Cow Bay Contracting jobsite office the listing of all hazardous chemicals used on site. Update monthly.
- 6. Keep all MSDS's on file at the jobsite, and send copies to Cow Bay Contracting Safety Director.
- 7. Establish procedure for the exchange of all MSDS's on site.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION

HAZARDOUS NON-ROUTINE TASKS

Periodically, Cow Bay Contracting employees are required to perform hazardous non-routine tasks (confined space entry, checking the bottom of caissons, entering manholes, etc.). Prior to their starting work on such projects, each employee will be properly instructed and become proficient on matters pertaining to hazardous chemicals to which they may be exposed. Cow Bay Contracting will provide any necessary personal protective equipment for its employees.

RENOVATION/DEMOLITION WORK

It is important when doing renovation or demolition work to check the contents of all unmarked pipes. Any building built prior to 1978 must be checked for asbestos, prior to the start of any work.

STATE PROGRAMS

Many states have their own Right-To-Know programs in effect. Check with your Safety Director for local regulations. OSHA pre-empts all state programs where workers are involved.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION PROGRAM FOR COW BAY CONTRACTING

This program has been established to meet the requirements of the OSHA Hazard Communication Regulations CFR 1926.21(3) and the Hazard Communication Rule dated August 24, 1987 CFR.1926.59, also CFR 1910.1200 if applicable.

The purpose of this program and standard is to ensure that employees are made aware of the hazards of chemicals found in their work environment. This information is to be transmitted by means of a written hazard communication program, container labeling, material Safety data sheets and employee education and training program.

A copy of Cow Bay Contracting Hazard Communication Policy will become a part of the Safety Program, thus every employee will have access to it whenever questions arise. The job site Safety program will be tailored after the Safety Program and will be site specific as will the hazard communication program.

A survey of the jobsite will be done by the Project Superintendent or his site Safety coordinator to identify all known hazardous chemicals used by employees at the jobsite. A list of these chemicals, as well as copies of the material Safety data sheets will be posted in the Cow Bay Contracting field office and a copy of each sent to Cow Bay Contracting Safety Director.

Material Safety Data Sheets (MSDS)

The Superintendent will be responsible for obtaining and maintaining the on-site file of all MSDS's supplied by the Subcontractors while all MSDS's may not be uniform in appearance, they must convey the same message.

- 1) Identify the Product
- 2) Known acute and chronic health effects and related health information (Target organ effects)
- 3) Exposure Limits (TLV) Threshold Limit Value
- 4) If the product is a suspected carcinogen
- 5) Personal protective equipment to be used
- 6) Emergency and First-Aid procedures
- 7) Identification of the party responsible for the MSDS

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION (continued)

The Superintendent will ensure that an MSDS is obtained with each shipment of any material on the hazard substance survey list, should one not be obtained at that time, they will follow-up in writing to the parties involved to obtain one, within 72 hours after notification.

Container Labeling

The Superintendent and/or the site Safety coordinator will verify that all containers received for use are:

- a) Clearly labeled as to content;
- b) Appropriate warnings noted; and
- c) Names and addresses of the manufacturers listed

A written description of the labeling system used by each subcontractor will be required, along with written alternatives to the original label used. All secondary containers used with small quantities of a given material must also be properly labeled.

Labels may be in writing, pictures, numerical system or any combination of the above. The message must be understood as to the nature of the hazard, personal protective equipment needed, parts of the body affected and emergency procedures.

Employee Training and Education

Cow Bay Contracting Safety Director is responsible for the training of all Cow Bay Contracting employees with regards to the Hazard Communication policy and program.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION (continued)

Training of all Cow Bay Contracting personnel can include, but not be limited to:

- a) in house seminars
- b) guest speakers
- c) use of visual aids
- d) On-site updates of new products and materials and their related hazards.

Classroom instruction should include but not be limited to:

- a) How to read and understand the information provided on the MSDS's and labels supplied by the subcontractor.
- b) An overview of the requirements contained in the Hazard Communication Standard.
- c) While the Hazard Communication standard may discuss "chemicals" it may also include such items as welding or burning gases, cement, solvents, glues, wood dust, welding fumes and other such common items of every jobsite.

After attending the training class, each employee will sign a form to verify they have been properly trained with regards to the Hazard Communication Standard, and understand this 's policy regarding the Hazard Communication Policy.

Training of all new Cow Bay Contracting personnel will take place as they are assigned to their respective positions.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION (continued)

Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by their supervisor about hazardous chemicals to which they may be exposed during such activity.

This information will include, but not be limited to:

- a) Specific chemical hazards.
- b) Protective/Safety measures that the employee will take to prevent exposures; and
- c) Measures the has taken to lessen the hazard, including ventilation, respirators, presence of another employee, and emergency procedures.

An example of non-routine tasks is confined space entry, i.e., checking the bottom of caissons, entering manholes, etc.

When doing renovations or demolition at a jobsite it is important to know the contents of all unmarked pipes.

Exchange of MSDS's.

The exchange of MSDS's on a multi-employer jobsite will take place at the regular site Safety meeting, all contractors, subcontractors and sub-sub-contractors are to abide by this exchange.

Safety and Site Controls

Safety Policy F-1

GUIDELINES, HAZARD COMMUNICATIONS POLICY

PURPOSE:

- 1. To comply with the OSHA Hazard Communication Regulations CFR 1926. 21(b) (3) and the Hazard Communication Final Rule dated August 24, 1987. CFR. 1926.59
- 2. To establish a set of guidelines for site specific Hazard Communication Training programs for all Cow Bay Contracting personnel.
- 3. To outline the responsibilities and duties of all departments both in the office and at the site.

RESPONSIBILITIES

PROJECT EXECUTIVE

To establish up front communications with clients to determine if there will be any exposure to hazardous materials and obtain the necessary MSDS's, i.e., research labs, hospital labs, etc.

ACCOUNTING

To add the necessary language in our contracts with Subcontractors making it mandatory they supply the required MSDS's for any hazardous materials they may need in execution of their contract.

ENGINEERING

To follow up the requirements of the Project Executive and Accounting in getting the MSDS requirements to the Owners and Subcontractors.

Safety and Site Controls

Safety Policy F-1

STAFF GUIDELINES HAZARD COMMUNICATIONS POLICY continued)

RESPONSIBILITIES

<u>SUPERINTENDENT</u>

To collect and maintain an on-site file of all MSDS's supplied by the Subcontractors.

Shall enforce compliance with Cow Bay Contracting Hazard Communication Policy.

If deemed necessary, notify the Subcontractor of their non-compliance with the Hazard Communications Regulations.

Send copies of all the MSDS's received to Cow Bay Contracting Safety Director.

SAFETY DIRECTOR

Keep a master file of all MSDS's received from all projects. Conduct Hazard Communication Training Sessions for all Cow Bay Contracting personnel so they may have a better understanding of the Hazard Communication Regulations.

Act as a liaison between the projects and OSHA on all matters concerning the Hazard Communications Regulations.

GENERAL INFORMATION

It is Cow Bay Contracting policy to educate and train its employees in all matters of Safety and Health.

The Federal Hazard Communications Regulations CFR 1926.59 became effective on May 23, 1988. Most states already have some sort of Right to Know Legislation on their books and some will be pre-empted by the Federal Hazard Communication Regulations.

It is very important to determine which jurisdiction rules when addressing the Hazard Communication problem.

OSHA governs all situations where workers are involved.

Safety and Site Controls

Safety Policy F-1

STAFF GUIDELINES HAZARD COMMUNICATIONS POLICY (continued)

GENERAL INFORMATION

Under the current rule, a written hazard communications program must be developed and implemented for each workplace. In the construction industry this program must be tailored for each individual job site.

Provisions in that program must include, but not be limited to:

- a) Manufacturers of chemicals must provide hazard information to the on-site contractors.
- b) There must be an exchange of material Safety data sheets between all contractors, subcontractors on a multi-employer site.
- c) Training must be done by each employer for their employees to educate them in the hazards they may be exposed to at that site.
- d) A list of the hazardous chemicals known to be present using an identity that is referenced on the appropriate MSDS.
- e) Identification of unmarked pipes or unusual situations must also be addressed.
- f) Proper labeling of all containers and secondary containers used on-site.

The EPA regulations known as EPCRA do not pre-empt any state or local law or modify the duties or liabilities of any person under any further law with one exception. That exception involves Material Safety Data Sheet requirements and says that any state or local law enacted after August 1, 1955, which requires the submission of an MSDS must require that the data sheet be identical in format and content to the data sheet required by Section 311 of EPCRA by means of attachments to data sheets or other means.

State or local regulations govern the exposure to the general public. They may also regulate the content of the MSDS beyond the requirements of the EPA, EPCRA regulations.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION (continued)

SAFETY DIRECTOR GUIDE, STAFF TRAINING

All employers are required to develop and to communicate to employees Hazard Communication Programs based on the Federal Hazard Communication Standard. This presentation is designed to highlight your responsibilities under the law and under Cow Bay Contracting Program.

In general the Federal Standard is performance oriented. It allows some flexibility in the way it is implemented. In other words, the law has certain requirements but is less specific in saying how these requirements must be carried out. In general, employers are required to:

- 1. Inform workers of the nature of the health hazards from materials that they handle.
- 2. Describe actions taken by management to control these hazards, and
- Express the need for workers involvement to maintain control of chemicals and other hazardous materials.

Employers are also given a number of more specific responsibilities:

- 1. There must be a written Hazard Communication Program which essentially outlines all aspects of the employer's and the employee's responsibilities.
- 2. Material Safety data sheets must be obtained from manufacturers and be available for use.
- 3. Label and warnings must be maintained on all materials produced.
- 4. Information and training must be provided to employees who will use or be exposed to chemicals.

Each of these specific responsibilities will be discussed in greater detail over the next few pages.

Safety and Site Controls

Safety Policy F-1

SAFETY DIRECTOR, GUIDE STAFF TRAINING (continued)

Cow Bay Contracting recently developed a written program and each of you has a copy before you. The program outlines your responsibilities as job staff and also covers other requirements under the law such as labels and warnings, material Safety data sheets, and employee training.

Responsibilities of various personnel can be found below. These are:

B) PROJECT EXECUTIVE:

To establish up front communications with clients to determine if there will be any exposure to hazardous materials and obtain the necessary MSDS's, i.e., research labs, hospital labs, etc.

ACCOUNTING

To add the necessary language in our contracts with Subcontractors making it mandatory they supply the required MSDS's for any hazardous materials they may need in execution of their contract.

ENGINEERING

To follow up the requirements of the Project Executive and Accounting in getting the MSDS requirements to the Owners and Subcontractors.

SUPERINTENDENT:

To collect and maintain an on-site file of all MSDS's supplied by the Subcontractors and to forward copies of data sheets to Cow Bay Contracting Safety Director. Verify that labels are provided on incoming materials and are properly maintained. Ensure that all Cow Bay Contracting employees receive specific training in the safe use or handling of materials they are likely to encounter on the job. Shall enforce compliance with Cow Bay Contracting Hazard Communication Policy. If deemed necessary, notify the Subcontractor of their non-compliance with the Hazard Communications Regulations.

Safety and Site Controls

Safety Policy F-1

SAFETY DIRECTOR GUIDE STAFF TRAINING (continued)

C) SAFETY DIRECTOR:

Keep a master file of all MSDS's received from all projects. Conduct Hazard Communication Training Sessions for all Cow Bay Contracting staff so they may have a better understanding of the Hazard Communication Regulations.

Act as a liaison between the projects and OSHA on all matters concerning the Hazard Communications Regulations.

<u>MSDS</u> - The first specific superintendent responsibility concerns material Safety data sheets, which must be obtained for all hazardous materials.

As part of the pre-planning process, the Project Superintendent working with known subcontractors will develop a list of all hazardous chemicals likely to be used by employees at the jobsite. This list of chemicals, as well as copies of the material Safety data sheets, will be posted in the Cow Bay Contracting Field Office and a copy of each sent to Cow Bay Contracting Safety Director.

- D) The Superintendent will be responsible for obtaining and maintaining the on-site file of all MSDS's supplied by the Subcontractors. While all MSDS may not be uniform in appearance, they must convey the same message:
 - 1) Identity of the product
 - 2) Known acute and chronic health effects and related health information (Target organ effects)
 - 3) Exposure Limits (TLV) Threshold Limit Value
 - 4) If the product is a suspected carcinogen
 - 5) Personal protective equipment to be used
 - 6) Emergency and First-Aid procedures
 - 7) Identification of the party responsible for the MSDS

To obtain Data Sheets from subcontractors, purchasing Dept. has added a clause to our subcontractor agreement making it mandatory that they supply Cow Bay Contracting with MSDS's for any hazardous materials they bring on the site. Engineering is expected to follow-up on this requirement with owners and subcontractors.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION (continued)

SAFETY DIRECTOR GUIDE STAFF TRAINING (continued)

E) The Superintendent will ensure that a MSDS is obtained with each shipment of any materials on the hazard substance list. Should one not be obtained at that time, they will follow up in writing to the parties involved to obtain one, within 72 hours after notification. A sample letter for MSDS follow-up can be found in Appendix B.

LABELING

The next specific program requirement is container labeling.

- F) The Superintendent and/or the site Safety coordinator will verify all containers received for use are:
 - a) Clearly labeled as to content;
 - b) Appropriate warnings noted; and
 - c) Names and addresses of the manufacturers listed

A written description of the labeling system used by each subcontractor will be required along with written alternatives to the original label used. All secondary containers used with small quantities of a given material must also be properly labeled.

Labels may be in writing, pictures, numerical systems or any combination of the above. The message must be understood as to the nature of the hazard, personal protective equipment needed, parts of the body affected and emergency procedures.

INFORMATION AND TRAINING

The superintendent is responsible for training hourly Cow Bay Contracting employees in the following areas:

- 1) Overview of the requirements contained in the Hazard Communication Standard and the location and general content of the Cow Bay Contracting Hazard Communication Program.
- 2) How to read and understand the information provided on Material Safety Data Sheets and labels. Also, the locations of this information must be discussed.
- 3) Hazardous materials they are likely to be exposed to on the job.
- Personal protective equipment required for various operations and how it should be used and maintained.

Safety and Site Controls

Safety Policy F-1

HAZARD COMMUNICATION

SUPERINTENDENT'S GUIDE TO EMPLOYEE TRAINING

In compliance with Federal Law, Cow Bay Contracting has developed a Hazard Communication Program. This program is intended to inform employees of the potential hazards of chemical products which they may be exposed to while on the jobsite. By providing this information, our goal is to ensure the proper precautions are taken to minimize the health risks of materials used in the construction of any building, whether by Cow Bay Contracting or another general contractor.

As with other aspects of Cow Bay Contracting Safety Program, a written program has been completed and is kept on the job by the Superintendent. Included in it are specific guidelines concerning requirements of the Federal Law, such as material Safety data sheets, labeling and personal protection. Let's talk about each of these in more detail.

<u>MATERIAL SAFETY DATA SHEETS</u> - These are developed by the manufacturer of construction materials, such as glues, solvents, paints, insulation, etc. MSDS's are obtained by Cow Bay Contracting for all material brought on the site by Cow Bay Contracting and are also obtained for all materials used by subcontractors.

MSDS's include information about a material's chemical composition and potential adverse health effects if it is improperly used. The MSDS also points out how a product is most safely used, such as with adequate ventilation, and if personal protective equipment is needed. Emergency and spill clean-up procedures are also noted.

We will review data sheets for any materials you are likely to encounter on the job. In some cases, we will discuss a broad class of materials, such as solvents or dusts, instead of reviewing individual data sheets. In either case, our goal is to guarantee the materials are used as safely as possible and that you are properly protected.

The Superintendent has a full set of MSDS's in the job trailer. If you have questions regarding a chemical product you are using, you may ask to review the data sheet.

Safety and Site Controls

Safety Policy F-1

SUPERINTENDENT'S GUIDE TO EMPLOYEE TRAINING (continued)

<u>LABELING</u> - Another bit of information which you should be aware of is labels. Labels are provided by manufacturers and must be attached to each container of paint, caulk, thinner, glue, or other material used on the job. Labels may include writing, pictures, or number information, but in each case are designed to point out the nature of the hazard, personal protective equipment needed, parts of the body which may be affected, and any emergency procedures. You should not remove labels from the container of any product you are using. If you pour some material into another container and will not use it up before you leave the job for lunch or after work, you must mark the container so other workers will know what is in it.

<u>PERSONAL PROTECTIVE EQUIPMENT</u> - If personal protection is required, it will be provided for you by Cow Bay Contracting. In most cases, you will need nothing more complicated than Safety glasses or goggles, gloves, or possibly a respirator. Equipment you will need will be determined by the information on the Data Sheet provided by the product's manufacturer.

MATERIALS LIKELY TO BE ENCOUNTERED - Based on our experience and on discussions with the subs, we believe you may run across the following items during this phase of the job. Let's discuss the data sheets for these items and review a number of product labels.

Safety and Site Controls

Safety Policy F-2

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1. Executive Summary

2. Introduction

- 2.1 <u>Purpose</u> To identify existing environmental liabilities that would result in potential financial or legal liabilities. Description of sponsor of site assessment and any planned site development.
- 2.2 Special Terms and Conditions -
- 2.3 <u>Limitations and Exceptions</u> -
- 2.4 <u>Limiting Conditions</u> -

3. Site Description

- 3.1 <u>Location and Legal Description</u> Site Plan
- 3.2 <u>Site and Vicinity Characteristics</u> -
- 3.3 <u>Description of Improvements</u> Buildings, roads, utilities, sewers, heating and cooling system.
- 3.4 <u>Information on Liens</u> -
- 3.5 <u>Current Site Uses</u> -
- 3.6 Past Site Uses -
- 3.7 Adjacent Properties, Current and Past Uses -
- 3.8 Site Map and Plan -

Safety and Site Controls

Safety Policy F-2

PHASE I ENVIRONMENTAL SITE ASSESSMENT

4. Review of Records - Documented

4.1 Federal and State Sources -

Federal National Priorities List - 1.0 mile

Federal CERCLIS List - 0.5 miles

Federal RCRA TSD List - 1.0 mile

Federal Emergency Response List - site only

State NPL and CERCLIS List - 1.0 mile

State Waste Disposal Site Lists - 0.5 miles

State registered UST Lists - site and adjoining properties

State Leaking UST Lists - 0.5 miles

Citations, Administrative Orders

4.2 Local Sources -

Lists of Landfill Sites

Lists of Hazardous Waste Sites

Lists of Registered UST

Records of Emergency Response Reports

Records of Contaminated Wells

Potential Sources:

Health Department

Safety and Site Controls

Safety Policy F-2

PHASE I ENVIRONMENTAL SITE ASSESSMENT

4.2 Local Sources

Potential Sources

Fire Department

Planning Department

Building Department

Regional Pollution Control Agency

Regional Water Quality Agency

Electric Utility Companies

4.3 Physical Setting - Geologic, Hydrogeologic, Hydrologic, Topographic

USGS 7.5 Minute Topographic Map

State Groundwater Maps

State Bedrock Geology Maps

Soil Conservation Survey - Soil Maps

4.4 Historical Uses - Back to at least 1940. Include environmental uses of site and adjacent areas.

Aerial Photographs

Fire Insurance Maps

Property Tax Maps

Recorded Land Title Records

Safety and Site Controls

Safety Policy F-2

ENVIRONMENTAL SITE ASSESSMENT (continued) PHASE I

4.4 <u>Historical Uses - Back to at least 1940. Include environmental uses of site and adjacent areas.</u>

USGS 7.5 Minute Topo Maps

Building Department Records

Zoning Use Records

Existing Site Assessments

4.5 Other Sources -

Environmental Assessments on Adjacent Sites

Environmental Audit Reports

Environmental Permits

Registration of Storage Tanks

Material Safety Data Sheets

Right-To-Know Plan

Spill Prevention, Countermeasure and Control Plans

Hydrogeologic Reports

Notices of Violations/Administrative Orders

Hazardous Waste Generator Reports

Geotechnical Studies

Safety and Site Controls

Safety Policy F-2

ENVIRONMENTAL SITE ASSESSMENT (continued) PHASE I

5. Site Reconnaissance and Interviews

5.1 <u>Interview Sources</u> - Document

Current Owner/Maintenance Personnel

Major Site Occupant

Any Occupant Handling Hazardous or Petroleum Materials

Adjacent Property Owners

Agency Regulatory Personnel

5.2 Environmental Issues -

Current or Past Generation or Use of Hazardous Substances or Petroleum Products

Unidentified Containers of Materials

Above Ground and Underground Storage Tanks

PCBs

Suspected Dumping Areas; Solid Waste Disposal

Migration of Hazardous Substances

Sewage Disposal, Septic Tanks

Waste Water Discharge

Waste Pits, Ponds, Lagoons

Drains and Sumps

Safety and Site Controls

Safety Policy F-2

ENVIRONMENTAL SITE ASSESSMENT (continued) PHASE I

5. Site Reconnaissance and Interviews

5.2 Environmental Issues

Drum Storage Areas, Stains, Odors

Cooling System CFCs

Asbestos Containing Materials

Radon

Lead Paint, Battery Disposal

Lead in Drinking Water

Wetlands

Contaminated Fill Materials

Environmental Liens

6. Findings and Conclusions

7. Credentials and Certifications

Safety and Site Controls

Safety Policy F-3

CONFINED SPACES

According to the National Institute of Occupational Safety and Health (NIOSH) the definition of a confined space is one which by design has limited openings for entry and exit; and unfavorable natural ventilation which could contain or produce dangerous air contaminants. In construction we create many temporary confined spaces by operating in areas prior to the permanent ventilation system being installed. We increase the possibility of hazardous conditions with winter weather protection. Hazardous confined spaces are divided into three main categories:

<u>Lack of Oxygen</u> - Normal air is 21% oxygen by volume. Should the percentage drop to near 17% drowsiness and impaired ability to think clearly occur. Anything below 12% CAUSES UNCONSCIOUSNESS AND IS USUALLY FATAL.

<u>Combustible or Explosive</u> - Any contaminant in a confined space creates the possibility of fire or explosion. Heat, static electricity, etc. can cause ignition. Many gases are heavier than air and collect in the bottom of pits, trenches, sewers and rooms. Not only gases are a problem, dusts too can be explosive. Many operations, particularly cutting and welding, create hazards in confined spaces since the use of any combustible or explosive chemical in a confined space allows the buildup of dusts and vapor.

<u>Toxic Atmosphere</u> - We are all aware of the dangers of toxic substances in storage tanks, the less obvious are the toxic situations you might find in construction. Toxic chemicals can be brought into confined spaces. Welding, cutting, painting, etc. can raise the level of chemicals in a confined space to hazardous levels. We must recognize that confined space hazards exist in construction and are not a problem confined to storage tanks, silos, etc.

Instruments are available to check for toxic or combustible substances and to measure oxygen volume. Contact your Safety Director regarding these instruments. Confined spaces need not be dangerous if handled properly. Be aware of their existence and the problems they can cause.

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Safety and Site Controls

Safety Policy F-4

ASBESTOS

All buildings constructed prior to 1978 where Cow Bay Contracting will be performing demolition, renovation and/or penetration work must be surveyed for asbestos.

- 1. Cow Bay Contracting will not under any circumstances engage in, not subcontract for removal of asbestos.
- Owners will be requested to have inspection made by a Certified Testing, Industrial Hygienist or Asbestos Removal Contractor. Where asbestos levels are found to be above minimally accepted levels, the owner must contract for its removal.
 - Prior to start of construction by Cow Bay Contracting and/or its subcontractors Safety Directors will ensure that written certification of acceptable asbestos levels is obtained. Copies are to be distributed to the Director of Safety.
- 3. Where <u>accidental or unexpected</u> encounter of asbestos occurs on a working site, the building (or significant area surrounding the discovery) should be vacated and barricaded with suitable warning signs. Access should not be allowed until written certification is obtained by Cow Bay Contracting Safety Director. Copies are to be distributed to the Director of Safety.
 - Upon such discovery of <u>any</u> asbestos on a working site the Business Safety Director will immediately notify the Director of Safety.
- 4. Where documentation cannot be obtained, no work is to be performed.
- 5. In the event that the Owner forces Cow Bay Contracting to abate the asbestos under Cow Bay Contracting contract, Cow Bay Contracting must subcontract the abatement work to ET Environmental Corporation. To do so, please contact Cow Bay Contracting Safety Director.

Safety and Site Controls

Safety Policy F-5

LEAD

Lead, like asbestos, can be found on most job sites as it was used in many products and in many ways.

Lead, however, can be very dangerous. It can get into your body as fumes containing lead are formed during the melting or paving process when lead is heated to extreme temperatures, i.e., plumbing, removing paint or soldering.

Dust containing lead is formed during sandblasting, grinding, sanding or cutting process.

Mist containing lead is formed during spray painting operations which use lead base paints.

Cow Bay Contracting will not, under any circumstances, engage in, or subcontract for, the removal of lead.

Owners will be requested to have an inspection made by a certified testing, industrial hygienist, or lead removal contractor. Where lead is found the owner must contract for its removal.

Certification that the lead has been removed and the area is safe to work must be obtained by the project superintendent.

In the event that the Owner forces Cow Bay Contracting to abate the lead abatement under Cow Bay Contracting contract, Cow Bay Contracting must subcontract the abatement work to ET Environmental Corporation. To do so, please contact Cow Bay Contracting Safety Director.

Safety and Site Controls

Safety Policy F-6

SPRAY-ON-FIREPROOFING

The hazards from over-spray and fall-out of spray-on-fireproofing may be aggravated by blowing wind.

The following must be enforced to keep potential hazards to a minimum:

- 1. Employees who spray and mix fireproofing material must wear respirators approved by the U.S. Bureau of Mines for toxic dusts.
- 2. Other trades must be kept out of the areas being sprayed.
- 3. Floors must be cleaned of spray fall-out as it accumulates and this placed in bags or in closed containers.
- 4. To contain over-spray, exteriors must be enclosed. To avoid disturbing fireproofing on exterior columns and spandrel beams, considerable care must be taken when removing protection. It is recommended that plastic tarpaulins be used as the spray fireproofing will not stick to this material.
- 5. When fireproofing is completed in an area or on a floor, the material must be completely removed from the floor before the overs-pray protection is removed.
- All fireproofing material that has collected on or in the overs-pray protection must be completely removed as the protection is removed. No material shall be allowed to fall out of the building or left on the floor.
- 7. Dust created by dumping dried bagged material into the mixer must be controlled.
- 8. Empty bags must be neatly stacked and tied. No dried material shall be allowed to contaminate the area.
- 9. Special care musts be taken to avoid over-spray from the cementatious spray-on-fireproofing on floors and platforms causing exceedingly slippery conditions.

Safety and Site Controls

Safety Policy F-7

CARBON MONOXIDE

Carbon monoxide is formed by the incomplete combustion of carbonaceous materials such as coke, oil, gasoline, and natural or manufactured gas. It is flammable, toxic, non-irritating, tasteless, odorless, and heavier than air. When inhaled it combines with hemoglobin of blood, excluding oxygen from the tissues, ultimately resulting in asphyxia. Some of the common symptoms of carbon monoxide poisoning are shortness of breath, headache, dizziness, muscular weakness and nausea. (See Chart)

Temporary heaters and/or gasoline motors used in confined and/or depressed areas where men are working produce the greatest carbon monoxide poisoning exposures. (See Safety Policy B-1)

The Universal Carbon Monoxide Tester Catalogue No. 83500 with detector tube Catalogue No. 91229 NIOSH #TC84-015 manufactured by the Mine Safety Appliance, Pittsburgh, PA is approved, and is available at the New Jersey and Cincinnati Shops, contact Safety Director for assistance.

Concentrations of carbon monoxide over 50 PPM (.005%) produced systems such as choice discrimination errors and reaction time changes. Under 50 PPM (.005%) these disturbances are not significant.

<u>Testing Requirements</u> - Use of <u>any device</u> that discharges the products of combustion into a work area of <u>any</u> employee requires testing defined below:

- 1. Test the work area to determine the concentration of carbon monoxide at least three times each 8 hour period.
- 2. Test several different points within the area and at the breathing heights of an employee.
- 3. Maintain a record of these tests, noting the date, time and result of each test.
- 4. Remove the employees from the area when the concentration of carbon monoxide reaches 50 PPM (.005%). Ventilation shall be provided to reduce the concentration below 50 PPM before the employees are allowed to resume work in the area.
- 5. Test more often than 3 times per day when the concentration of gas increases to 30 PPM.

Safety and Site Controls

Safety Policy F-7

CARBON MONOXIDE (continued)

<u>Use of Solid Fuel Salamanders</u> - Section 1926.154 (d) Occupational Safety and Health Act, Safety and Health Standards for Construction:

"Solid Fuel Salamanders are prohibited within buildings and on scaffolds."

OSHA has interpreted that this standard was adopted to prevent fires and carbon monoxide hazards associated with the burning of spark-producing fuels (wood and paper) in open salamanders, and was not intended to apply to properly constructed and equipped solid fuel (coke and coal) salamanders used in structures <u>under construction</u>. The use of solid fuel salamanders (heating units with combustion exhausting into the surrounding enclosed atmosphere) will continue to be prohibited on scaffolds or in buildings defined as "roofed and walled structures."

Safety and Site Controls

Safety Policy F-8

FLUORESCENT LAMP BREAKAGE - A HAZARD

In addition to the possibility of cuts from glass fragments, serious injury can result from broken fluorescent tubes due to the release of the small amounts of mercury vapor they contain. Mercury vapor, even in very minute quantities, is poisonous. Persons exposed in close proximity or who are cut should consult a doctor immediately so they may take necessary precautions.

Removal, transport and disposal of fluorescent lamps is now regulated by the EPA. Contact your Safety Director/Environmental Manager for additional information.

Safety and Site Controls

Safety Policy F-9

CARBON TETRACHLORIDE/CLEANING SOLVENTS

Carbon Tetrachloride (CC1 4) a poisonous, nonflammable, colorless liquid has been used extensively as a cleanser and as a fire extinguishing agent. It is a dangerous KILLER. Employees have died from exposure to its fumes even while working in the open in a short period of two hours. The usual symptoms are nausea and headache. The liver is violently attacked and death follows swiftly.

THE USE OF CARBON TETRACHLORIDE IS PROHIBITED ON ALL COW BAY
CONTRACTING PROJECTS WITHOUT SPECIFIC APPROVAL FROM COW BAY
CONTRACTING SAFETY DIRECTOR AND OUR INSURANCE CARRIER. If there is an exceptional condition that requires the use of this chemical, elaborate precautions for ventilation, respirators, etc. must be followed. Our, or in the case of a Subcontractor, their Insurance Carrier will issue these instructions after investigation of the case.

FIRE EXTINGUISHERS CONTAINING CARBON TETRACHLORIDE ARE PROHIBITED ON OUR JOBS. Gasoline or similar fluids must not be used for cleaning.

Alternate Cleaning Solvents

Safer cleaning fluids with lower toxicity which is not cumulative are available that do not react with steel, aluminum, copper or brass. Adequate ventilation is required.

<u>Stoddard's, Varsol</u> and other similar petroleum solvents may be used as all purpose cleaners. They are flammable, with high uniform flash points. Although not as rapid or effective as certain other solvents, they do not have dangerous characteristics.

<u>Kerosene</u> - While flammable and not always as rapid or effective, it is a much safer cleaner. Adequate fire protection should be provided.

Rubber Gloves should be used as all solvents remove oil from the skin.

<u>Protex</u> - One of the "Invisible Glove Compounds", is a protective cream put out by DuPont in jars. It is applied to the skin which is exposed to these solvents and acts as protection. It is available in most paint and hardware stores.

Consult Cow Bay Contracting Safety Director or the Insurance Carrier Loss Prevention Engineer for further information.

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Safety and Site Controls

Safety Policy G-1

DANGERS ENCOUNTERED IN ALTERATION WORK

Alteration work often presents Safety problems which are not common on new construction work.

ENGINEERING SURVEY - Prior to permitting employees to start demolition operations, an engineering survey of the structure shall be made, by a competent person. Written evidence that such a survey was performed must be available at the job site.

OSHA requires under 1926.850 subpart Demolition that an Engineering study be conducted to determine the effects of the demolition on the surrounding building prior to work, with a copy of this report kept on site.

Every project must have a Crisis Management Plan and a copy is to be sent to Cow Bay Contracting Safety Director. This plan is to be updated every six months.

A Phase I Environmental Study is to be conducted before the project starts.

Accidental Contact:

ASBESTOS - For all demolition, renovation and/or penetration work on buildings constructed prior to 1978, an asbestos survey must be made. Where asbestos levels are above minimally accepted levels, the owner must contract for its removal. After removal and prior to the start of construction, written certification of acceptable clean air levels must be obtained by Cow Bay Contracting.

<u>LEAD</u> - Before any demolition, renovation and/or penetration work is performed, a lead survey must be made. Where lead levels are above minimally accepted levels, the Owner must contract for its removal. After removal and prior to the start of construction, written certification of acceptable clear air levels must be obtained by Cow Bay Contracting.

<u>STRUCTURE NOT ACCORDING TO PLANS</u> - Frequently the original building was not built according to plans (such as bolts between members, anchors, hangers, braces, reinforcement, etc.) or alterations were made but not recorded.

Plans often require the cutting away of structural members either walls, columns or slabs. We must not assume the remaining portion of the members will stay in place and we must ensure that the connections to the rest of the structure are sufficient. We have had accidents resulting from portions of floors or platforms not being strong enough to act as cantilevers when designed originally as simple beams. In some instances we have found, encased in concrete, steel connections not bolted or riveted as obviously required. Proper shoring must be installed wherever extensive cutting is to be done.

Safety and Site Controls

Safety Policy G-1

DANGERS ENCOUNTERED IN ALTERATION WORK (continued)

Structural members, especially in older wooden structures exposed to weather, insects and/or dry rot, may be inadequate to serve as a base or alteration. Alteration programs must properly protect the structure against damage or collapse, as well as safeguard workers.

<u>UNEXPECTED UTILITIES</u> - Gas piping, electrical lines, water or sewage service, possibly not in use, but still "live", may not be shown on plans. Efforts must be made to discover any existing utilities to avert injury and/or property damage.

<u>ADJOINING STRUCTURES AND UTILITIES</u> - The Superintendent should personally inspect structures and utilities prior to the start of operations with adjacent owners. Adequate records, including photographs, are essential to determine existing damages.

<u>SPRINKLERS</u> - If sprinklers are present, heads should be properly protected. Even one spraying sprinkler head, if not promptly shut off, can inflict surprising damage to many floors below its location. Workers should know where to find control valves and switches and whoever is in charge of maintenance.

LIGHTING - The power supply for lighting must be protected against cut off by our work.

<u>WEATHER</u> - Be alert to changing weather conditions. Temporary enclosures must be strong to stand up under severe wind or storm conditions. Drains must be kept open. Where necessary, provision should be made for additional drains required during alterations. Altered roofing must be caulked so that driving rains will not enter the building below it. Protection against freezing for all utilities must be provided when necessary.

FIRE - Especially when portions of the building are occupied, exits must remain clear and separate from the operations of the workers. Fire extinguishers should be handy for quick action. Use of non-burning materials for temporary partitions where practical, and fireproof canvas when required, as well as prompt rubbish removal, are all of utmost importance. OWNER'S PERSONNEL - As a rule, owner's personnel are neither familiar with nor able to recognize construction hazards. Not only should our employees be aware of this, but extra safeguards need to be taken when we change portions of the premises which alter habits the owner's personnel may have acquired, such as the location of stairways, doorways, floors, etc.

<u>INSURANCE FOR SPECIAL HAZARDS</u> - If a Superintendent believes special hazards exist to adjacent property, special risk property damage insurance should be considered.

<u>COW BAY CONTRACTING NAMES FOR EMERGENCY</u> - The owner is to be given a list of Cow Bay Contracting personnel who may be called upon in case of emergency. This list should periodically be updated to reflect staff changes. We should have a list of our mechanics or laborers who can be available to handle emergency situations outside of normal working hours.

Safety and Site Controls

Safety Policy G-2

THE EFFECTS OF EXCAVATION AND RELATED WORK ON ADJOINING PROPERTY

Removal of rock or concrete by blasting and pile driving causes vibrations which may be sufficient to damage structures nearby, as may the removal of earth which results-in the movement of bracing systems and underpinning, or soil consolidation resulting from lowering of water table, etc.

A review of the sub-surface conditions (determined from on-site borings) and the plans of existing buildings (where available) are necessary to evaluate lateral and vertical integrity. An inspection to evaluate the condition of adjoining/existing structures may be desirable prior to (and possibly after ceasing) operations.

The degree of inspection should be influenced by the following:

- 1. The distance of the structures from the hazard.
- 2. The severity of the hazard.
- 3. The general condition of the structures.
- 4. Requirements by local laws, contract and/or liability.

There are four methods of inspection:

- 1. <u>Casual</u> A visual inspection of the surrounding structures (limited to those portions readily available from the exterior) made by the job superintendent. This type of inspection is primarily to determine if a more in depth survey is needed.
- 2. <u>Detailed</u> Representatives of Cow Bay Contracting, the appropriate subcontractor, the insurance carrier, and the neighboring property owner(s) noting the deficiencies informally.
- 3. <u>Photographic Survey</u> Photographs or videos of the interior or exterior of the structure and adjoining properties should be taken by a commercial photographer or video service. All photographs or videos should be dated and made part of the permanent job records.
- 4. <u>A Complete Engineering Survey</u> A consultant hired to completely detail the condition of the structures.

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Safety and Site Controls

Safety Policy G-2

THE EFFECTS OF EXCAVATION AND RELATED WORK ON ADJOINING PROPERTY

It should be determined prior to start of construction if our contract with the owner specified that Cow Bay Contracting make an engineering survey of adjoining property, or if local laws required such an engineering survey by either contractor or owner. When there are no such requirements, the severity of the hazard should be evaluated by a casual inspection of the surrounding structures to determine whether a more detailed inspection is necessary because one or more structures are in such apparent condition that job operations will likely cause further property damage.

In general, Cow Bay Contracting will take part in inspections 1 and 2; however, unless required by law, contract, or our liability, Cow Bay Contracting would not be responsible for inspections 3 and 4 and would not normally pay for these. The subcontractor most likely to cause the exposure has the prime need for the survey. All such surveys by subcontractors should be made available to Cow Bay Contracting in case of litigation.

When our insurance carrier deems inspections 3 and 4 are necessary for the defense of Cow Bay Contracting from law suits for damage, then the insurance carrier will recommend these inspections. Otherwise, the subcontractor whose work is likely to cause damage may be legally liable since he holds us harmless he is responsible, and should be encouraged to consider inspections 3 and 4.

Where job operations such as pile driving and blasting may cause vibrations affecting the nearby structures it is required that vibration measurements be made by the subcontractor's insurance carrier making data available to Cow Bay Contracting. This will enable the job to monitor and set up procedures to keep the energy ratio of the vibrations at a safe level.

Where settlement of the nearby street, utilities and structures may occur because of excavation and foundation work, the streets, utilities and structures must be regularly checked for vertical and horizontal movement and a log maintained. Any movement should be investigated immediately.

IT IS IMPORTANT TO BE ALERT TO SITUATIONS WHERE IT IS PRUDENT FOR COW BAY CONTRACTING TO REQUIRE THAT SPECIALISTS ARE CONSULTED REGARDLESS OF WHO MAY EVENTUALLY BE LEGALLY RESPONSIBLE OR WHO MAY PAY FOR THE SERVICE. UNDER NO CIRCUMSTANCES SHALL THE POSSIBILITY OF SERIOUS PROPERTY DAMAGE FROM THE JOB ACTIVITIES GO UNATTENDED BECAUSE OF A LACK OF APPROPRIATE ACTION ON THE PART OF COW BAY CONTRACTING. IN SUCH CASES THE ADVICE OF OPERATIONS MAY BE REQUIRED.

Safety and Site Controls

Safety Policy H-1

SUPERVISION OF SAFETY PROVISION BY SUBCONTRACTORS AND OTHERS

Safety Policy A-1 gives sources of Rules and Regulations of various states and the Federal Occupational Safety and Health Administration on Construction Work. Those regulations are of a broad scope designed to make construction project safe working areas for all those engaged in building work.

As General Contractors we are responsible for the general conditions which exist on each project. We are responsible to the owners and the general public for the performance of our subcontractors and others, including owners' employees, doing work on the site, as well as our own forces. We are very much interested in having all work performed in a safe manner.

Superintendents must always be alert to prevent unsafe conditions from developing and assure that a designated competent person is present as required by regulation. If a subcontractor's performance is not being handled carefully, the methods used and the conditions which are developing should be called to his attention as quickly and diplomatically as possible and corrections discussed with him. If negligence continues, the Superintendent should discuss the difficulty with the Project Executive, who if necessary, will bring to bear sufficient pressure from our office of jurisdiction. In case of imminent danger, the Superintendent (or any other Cow Bay Contracting staff member) must stop the activity, take immediate steps to correct any unsafe situations and then advise the subcontractor's office in writing that such corrections have been made at his expense and insist further negligence does not occur.

Continued failure to correct unsafe conditions by anyone should be reported to the subcontractor's home office. The subcontractor shall be given a set number of hours to make the corrections needed before Cow Bay Contracting acquires another subcontractor to perform the corrections needed and back-charge the offending subcontractor.

Laws have been liberalized to the point where General Contractors are held responsible beyond reason for negligent acts of <u>any</u> person engaged on the project whether the General Contractor's employee or not. Often a general discussion with the responsible foreman of the employees regarding an accident hazard and the method for its correction is sufficient to improve conditions generally. If work is not conducted in a proper manner from the Safety standpoint, we should see that adequate precautions are provided to correct such situations for the benefit of all those on the project. Constant supervision by the Superintendent and indeed, all staff members, is required to prevent injury and hazards.

Further, in the case of Worker's Compensation, the cost of all claims under our Public Liability Insurance coverage is used to determine our future premium rates. Therefore, it pays us in dollars and cents to reduce such claims as much as possible.

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Safety and Site Controls

Safety Policy I-1

SAFETY SIGNS AND SAFETY BANNERS

Warning, Danger and other signs, correctly posted, help to protect the public and employees from accidents. Further, they may limit the liability in case of an accident in a posted area.

Proper signs shall be posted and maintained in good condition wherever hazardous conditions exist. A sufficient supply of the necessary signs should be kept on hand for replacement and to cover new hazards as they develop. POST THE SIGNS WITHOUT DELAY, AND REMOVE THEM WHEN THE HAZARDS NO LONGER EXIST. Additional posting requirements are found in the Federal Occupational Safety and Health Act, Construction Standards. (ref. OSHA 1926.200).

DANGER SIGNS

Danger signs can be obtained from our Insurance Carrier covering our usual requirements. The superintendents should anticipate his job requirements and request suitable signs from the carrier's Safety Consultant who visits the job periodically.

<u>LP 476- NO TRESPASSING</u> - should be posted in conspicuous places around the perimeter of the site at all times. Keep unauthorized persons off jobsite.

These signs may not cover all conditions. New machines and modern methods may call for others. The Safety Department will welcome any suggestions as to proper wording, as well as ideas for the signs.

Safety and Site Controls

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