

COMPANY NAME

SPILL AND FIRE CONTINGENCY PLAN

DATE

1.0 POLICY

(Company name) is committed to a policy of sustainable development, which combines the need for our economic growth with the need to protect the environment and the health of our employees and the general public. We recognize the environmental and health implications of our activities and understand our responsibility to ensure that our operations do not adversely impact the environment and/or human health.

To fulfill this responsibility, we are committed to the objectives contained in the document entitled, "Recommendations for the Design and Operation of Wood Preservation Facilities" (TRD), published by Environment Canada. As a result, this plan has been prepared in accordance with the TRD and our commitment to comply with its requirements.

(Company name) will implement this policy by:

- constructing, maintaining and operating our facilities in accordance with the TRD and other applicable standards and regulations;
- ensuring that all employees are properly trained and accountable within their area of responsibility;
- ensuring that all employees have a personal copy of this plan and understand its contents;
- ensuring that copies of the plan are posted at key areas of the plant;
- ensuring that all employees are adequately trained to anticipate and deal with emergency situations that may cause damage to health and/or to the environment;
- ensuring that all service and construction contractors comply with all applicable regulations, instructions and procedures related to the prevention of emergency situations and have appropriate insurance to carry out any work necessary;
- using best available technology to ensure that we do not cause damage to the environment and/or to public health;
- responding to legitimate concerns and participating with other interested parties to fully understand environmental issues and develop rational and effective solutions;
- filing a copy of this plan with local police, fire, hospital and other emergency response services;
- reporting regularly to our employees, our customers, our local community and our shareholders (if applicable) with respect to the status of our implementation of this policy; and
- updating this plan as required but at least on an annual basis.

Signed and dated by the President.

2.0 PURPOSE

The success of our business depends upon the safe management of the chemical substances we use. These chemicals are: **(add or delete where necessary)**

chromic acid, copper oxide and arsenic acid, in both concentrated and dilute aqueous solutions, and known as chromated copper arsenate or CCA;

copper oxide, zinc oxide, ammonium bicarbonate, arsenic acid and aqueous ammonia, both as separate ingredients and also in solution as ammoniacal copper zinc arsenate, known as ACZA.

Pentachlorophenol (PCP) and petroleum oil solvent, both as separate ingredients and also in solution as PCP/OIL treating solution.

Creosote (CREO) and Bunker C oil, both as separate ingredients and also in solution as 50/50 MIX.

Kathon

Polyethylene glycol, known as PEG

(List other chemicals)

CCA and ACZA are also known as waterborne preservatives, while PCP/OIL, CREO and 50/50 MIX are also known as oil borne preservatives.

It is important to remember at all times, that although these chemicals are safe when handled properly, they are toxic and represent a potential threat to both the environment and to human health.

Therefore the purpose of this Contingency Plan is to ensure that we are all aware of our specific responsibilities related to both preventing and controlling emergency situations involving these chemicals. We must always be in a state of readiness to do everything possible to minimize the impact of our operations on the environment, particularly the **(describe any specific sensitive environment at your facility)** and also on the health of all concerned. This plan focuses on the most probable emergencies, which are spills and/or fires and has been prepared to ensure that we are capable of responding promptly and effectively to such emergency situations.

3.0 HIGH RISK AREAS AND OPERATIONS

Although spill and fire emergencies are discussed under separate headings in this plan, we must be aware that there is always the possibility that they will occur at the same time. A fire in the treating plant could cause damage to piping and tanks, which could lead to preservative solution being spilled. Preservative solutions increase the fire threat and will produce noxious fumes and toxic gases, which are hazardous to your health. Similarly, under certain circumstances, a preservative spill may result in a chemical reaction or explosion, which could start or prolong a fire.

In an emergency situation, all preservatives and the other chemicals on site must be considered to be a serious potential hazard to the environment and a potentially significant risk to your health and the health of others. To minimize health risks, everyone involved in controlling an emergency, must wear the personal protective equipment (PPE) specified in the Safety Manual, as follows:

- Hard hat.
- Splash-proof chemical goggles or face mask
- Full rain suit or impermeable coveralls
- Steel-toed chemical resistant boots
- Impermeable, chemical resistant gauntlets
- Respirator with spare cartridge

You must check your PPE weekly to ensure that all items are complete and in good working order. Any items that are missing or not in good order must be replaced immediately from Stores.

3.1 Spills

The high risk areas for spills are the systems used for receiving, unloading, mixing transferring, storing, applying and recycling chemical solutions, in the wood preservation plant, as shown on the site plan in Appendix I, "Site Plan and Plant Layout".

The major danger at these areas is an accidental discharge caused by faulty equipment or improper procedures. In the event of a spill, our main objective must be to contain the spill in as small an area as possible, while making sure that we take all the necessary personal safety precautions. All operations involved in dealing with a spill should be considered to be high risk, as any inhalation and/or ingestion of, and/or physical contact with **(name preservatives/chemicals)** can be hazardous to your health.

Detailed information on the preservative(s) and the other chemicals that we use is contained in Appendix III, "Chemical and Fuel Inventory and Safety Data". This information is in the form of Material Safety Data Sheets (MSDS) prepared by the manufacturer. Although individual MSDS may differ slightly in format, they will always contain the following information:

- Product identity and hazardous ingredients
- Physical data
- Fire and explosion data
- Health hazard information and emergency and first aid procedures
- Reactivity data
- Spill or leak procedures
- Special precaution and protection information

Those MSDS, which are relevant to your job will be explained to you in detail by **(Title/Name)** but you should also familiarize yourself with the general content of all these documents. If you do not understand any aspect of any MSDS you must ask **(Title/Name)** for an explanation.

3.2 Fires

The high risk areas for fires are the wood preservation plant, the maintenance shop, the remanufacturing facility, the storage yard and the fuel storage area, as shown on the site plan in Appendix I **(add/delete areas where necessary)**. We must use extreme caution during a fire involving chemicals in general and wood preservatives in particular, as they decompose at high temperatures and invariably create toxic fumes and/or combustion byproducts. The major dangers for personnel are exposure to the fire and the effects of toxic fumes. Therefore, if you are responding to a fire, you must wear the specified PPE and follow all procedures contained in our Safety Manual.

All fire residues must be considered to be contaminated waste and must be handled with care. They must be contained, until decisions are made about the correct method for their disposal. There are many companies who deal with spills, fires and disposal of waste involving these materials. One such company should be contacted and available to participate in the plant program.

4.0 PREVENTION

Despite the need for this plan to deal with worst case scenarios for spill and fire emergencies, we must never forget that our primary responsibility is to do everything possible to prevent their occurrence. In addition, we must be constantly alert in any situation where a potential fire, spill or injury hazard exists. Anyone who encounters a potential emergency condition must assess the situation carefully and if there is any immediate risk, should do whatever is safe and practical to minimize or eliminate that risk. The actions chosen must ensure that neither you nor any others are put into danger. You must immediately report all potential emergency conditions to a supervisor.

4.1 Spill Prevention

The major spill hazards are defective equipment and/or the use of improper procedures in the treating plant and **(List other chemical storage areas)**. Therefore, all equipment used for the unloading, storage, transfer and/or recycling of chemicals must be inspected, the design reviewed for its suitability to handle the chemical, and maintained in accordance with the established instructions and schedules, contained in the Operating Manual, to ensure that it performs with maximum reliability. Inspections and maintenance activities must be recorded in the appropriate log book by the person responsible. Log books will be checked by **(Title/Name)** to ensure that inspections have been carried out and that the maintenance procedures were appropriate. Any piece of equipment requiring repeated maintenance for the same defect will be further inspected by **(Title/Name)** to determine whether replacement of the equipment is required.

The main prevention prerequisites are:

- Ensure the containment can hold the required volumes;
- Ensure that the entire containment system is leak proof;
- Ensure that all equipment and piping is within the containment system;
- Ensure that pipes are not conducted through containment walls and walls do not contain holes.

Similarly, all operating procedures must comply with the instructions contained in the Operating Manual. **(Title/Name)** is responsible for regularly examining, discussing and updating procedures with plant staff to ensure that the chance of error, due to neglect or unfamiliarity with the system, is eliminated. **(Title/Name)** will document the review and updating of procedures with individual plant staff.

Trucks delivering chemicals will not be allowed on site outside normal working hours, unless approved in writing by **(Name/Title)**. Before issuing this approval, **(Name/Title)** must be satisfied that all emergency response procedures can be implemented during the unloading process and a trained employee is present at the site.

All alarm systems, including internal and external communication systems, such as two-way radios and telephones must be tested on a weekly basis. **(Name/Title)** will be responsible for ensuring these tests are carried out and documented and any defects are repaired.

4.2 Fire Prevention

While spill prevention is largely the responsibility of the treating plant staff, fire prevention is everyone's responsibility. The impact of a fire can be significant as there is always the possibility that it will spread throughout the plant and expose many people to the effects of toxic fumes and smoke. In addition, a fire may threaten nearby residences and businesses. Therefore, all instructions related to fire prevention, contained in the Operating and Safety Manuals, must be obeyed without exception. Important fire prevention responsibilities include the following:

Smoking in unauthorized areas is strictly forbidden. This rule will be enforced by disciplinary action.

Whenever heating, cutting, welding or grinding of metal is required outside the shop or garage, a Hot Work Permit must be obtained from **(Title/Name)**. A permit will not be issued until the area has been declared safe for the intended work, in accordance with our Safety Manual. Only authorized personnel are permitted to heat, cut, weld or grind metal anywhere in the plant. The established operating procedures and safety precautions, related to the prevention of fire and explosion, must be followed at all times.

All areas of the plant must be maintained to the standards defined in our Housekeeping Plan. In particular, work areas, machines and motors must be kept clean and free from accumulations of combustible materials, such as paper, rags, rubbish, sawdust, shavings, oil and grease.

Flammable preservatives, fuels, solvents and lubricants must be used and stored in accordance with the instructions contained in both our Safety Manual and the National Fire Code of Canada.

Electrical equipment, including wiring, switches, sockets, plugs and extension cords must be checked regularly. If found to be faulty, they must not be used until they are repaired or replaced. Fuses of the correct size and type must be used.

All plant ventilation systems must be operational and maintained in accordance with standing instructions to prevent the accumulation of flammable, explosive and/or toxic vapours.

5.0 ORGANIZATION FOR EMERGENCY SITUATIONS

In order to minimize the impact of an emergency situation, we must be well organized and well prepared, so that we can deal with it effectively and promptly.

Everyone must understand their own responsibilities, as well as the responsibilities of others and have the necessary knowledge to carry out their duties in a safe and efficient manner. In addition, everyone must be aware of the internal and external resources, which are available for the control of emergency situations. The key elements of our emergency organization are as follows:

Emergency Operations Centre: This will normally be located in the plant office. However, an alternate location may be used, depending upon the nature of the emergency.

Assembly Area: In the event of an emergency alarm, unless you have designated responsibilities as described below, you will proceed to the Assembly Area, which will be the **(name area)**, as shown on the site plan in Appendix I.

Senior Management: They will provide the necessary resources to deal with the emergency and if necessary, will prepare statements for release to the media and the public.

Emergency Response Coordinator (ERC): He/She will direct response operations, have total control over all site activities, serve as on-site liaison with the Fire Department, the Police and any other public agency that may be involved, ensure site security, determine the need for external resources and be responsible for preparing the final report on response activities. The following individuals are appointed as Emergency Response Coordinators: **(List names)**

Communications Officer (CO): He/She will be based in the Emergency Operations Centre and will be in constant contact with all personnel responsible for dealing with the emergency, via the plant two-way radio system. He/She will report to the Emergency Response Coordinator and will be responsible for making all outside phone calls to external resources, contractors and if necessary, to government agencies. He/She will also be responsible for maintaining a log of communication activities. The following individuals are appointed as Communication Officers: **(List names)**

Assembly Area Coordinator: He/She will be responsible for all activities in the Assembly Area including, a head count of all personnel in the area, a missing persons report to the ERC, assembly of emergency response teams as directed by the ERC, assignment of individuals for site security duties and the control and direction of ambulances, fire trucks and other external emergency response vehicles. The following individuals are appointed as Assembly Area Co-ordinators:
(List names)

Emergency Response Team: This team will be responsible for specific on-site tasks, under the direction of the ERC, in accordance with our Safety Manual. All employees are potential members of this team.

Rescue Team: This team will remove injured personnel from the emergency area and provide first aid services where required. If necessary, the team will also provide assistance to ambulance crews. The following individuals with current first aid qualifications are members of this team: **(List names)**

External Resources: These resources, which we may need to help us deal with an emergency include police, fire, ambulance, hospital and public utility services (gas, electricity and water), together with provincial and federal government agencies, our preservative supplier(s) and various contractors. A comprehensive list of these resources and their telephone numbers is contained in Appendix V, "Notification Lists".

6.0 PRE-EMERGENCY PLANNING

Our pre-emergency planning objective is to provide the knowledge and equipment resources needed to ensure rapid response to, and effective control of spill and fire emergencies.

6.1 Training

Training will be provided in the following areas and will be updated at least annually. The training of individual employees will be determined by their specific job responsibilities.

- Chemical substances and their hazards.

- Safe operation, design and maintenance of equipment and processes.

- Spill and fire prevention procedures for equipment and processes.

- Proper use of personal protective equipment.

- Proper use, inspection and maintenance of all plant safety equipment for the control of spills and fires.

- Emergency response procedures for spills and fires, including shutdown procedures.

- First aid and rescue procedures.

- Handling, storage and disposal of waste materials.

6.2 Emergency Drills

We will hold **(specify number but must be at least once)** drills per year to test the effectiveness of specific aspects of our spill and fire emergency training program. In addition to these regular drills, we will stage an annual full scale enactment of a major spill and fire emergency to test all aspects of our emergency response program.

Each drill and enactment will be evaluated in detail by the participants including any outside contractors and resources, to determine those areas where we need to modify our procedures, in order to improve our ability to control emergency situations.

6.3 Spill Control Equipment

Complete sets of spill control equipment and materials are provided in those areas of the plant where the danger of a chemical spill exists. These areas are: **(List areas)**

Spill control equipment and material locations are shown on the site plan in Appendix I.

Each location will contain the equipment and materials listed in Appendix IV, "Emergency Response Equipment".

Spill kits will be inspected weekly by **(Name/Title)** and logged to ensure they are complete. Any items that are missing or not in good working order must be replaced immediately.

6.4 Local Fire Department

The difference between a minor emergency and a major disaster may well depend upon the Fire Department's knowledge of our operation and our knowledge, which resources are available from the department. Therefore we will invite the Fire Chief to inspect our plant and review our procedures, at least once per year, to ensure that he and his staff are familiar with all aspects of our operation and have the opportunity to provide us with advice and guidance on the following points:

Site access routes.

Locations of hydrants.

Characteristics of the chemicals involved.

Volumes of chemicals and treated and untreated wood in storage.

Precautions and tactics for fighting fires involving chemicals and treated wood.

Symptoms of chemical poisoning.

Sources of medical help in case of contact with toxic chemicals.

Procedures for the containment and disposal of contaminated fire fighting residues.

Means of controlling drainage from the site.

Means of ventilating the facilities.

Evacuation plan for on-site personnel.

Adjacent building occupancies and land use.

Determining the necessity for an evacuation plan for adjacent residents who could be exposed to the effects of toxic gases or dust.

Determine approximate water volumes required to fight fires, to be able to provide sufficient containment equipment, facilities and materials.

(Name/title) will be responsible for arranging the Fire Chief's visit and will be the company's representative during the inspection. Any deficiencies pointed out by the Fire Chief will be reported to **(Name/title)** for immediate action.

6.5 Fire Fighting Equipment

Fire hydrants, fire hoses, water barrels and fire extinguishers are provided throughout the plant, in designated areas. This equipment must not be removed or used, except in the case of a fire, a fire drill, or for inspection and maintenance purposes. Equipment locations are shown on the site plan contained in Appendix I. Fires and the equipment necessary for their control are generally classified as follows:

Class “A” fires are defined as fires in ordinary combustible materials, such as wood, cloth, paper etc. These fires should be controlled with water.

Class “B” fires are defined as fires in flammable materials, such as **(list flammable preservatives, if applicable)** petroleum products, oils, lubricants, greases etc. These fires must be controlled with dry chemical or foam type extinguishing equipment. Note that automatic foam deluge systems have to be inspected and date tagged on an annual basis by a qualified outside contractor.

Class “C” fires are defined as fires involving energized electrical equipment. These fires must be controlled with dry chemical extinguishers only. NEVER use water.

For fires involving CCA, use any fire protection agent **except soda-acid.**

(Name/title) is responsible for ensuring that we have the correct type of fire extinguisher in designated areas.

(Name/title) is responsible for ensuring that hydrants, hoses, water barrels and extinguishers are inspected and tested monthly. Defective items must be repaired or replaced immediately. When an extinguisher is completely or partially discharged for any reason, it must be refilled immediately.

(Names/titles) are responsible for weekly inspections to ensure that access to fire exits, fire alarms and fire fighting equipment is not restricted. In addition **(Name/title)** is responsible for ensuring that the plant and storage yards are managed in accordance with the National Fire Code of Canada, in terms of fire access routes, vegetation control and the storage of wood adjacent to buildings. All employees must be familiar with the location of the fire exits, fire alarms and fire fighting equipment in their area.

6.6 First Aid

When the plant is fully operational during normal working hours, there will be at least **(specify number)** employees on site with current first aid qualifications.

At least one employee with current first aid qualifications must be on site whenever any part of the plant is operating, outside normal working hours.

All first aid personnel must be trained in the response procedures applicable to the chemicals we use.

Equipment and supplies necessary to administer the first aid emergency procedures specified in the up-to-date MSDS, must be maintained at all times. The location of first aid supplies is shown on the site plan in Appendix I.

(Names/Titles) will be responsible for ensuring that the required number of trained first aid personnel are on-site at all times.

(Names/Titles) will be responsible for the weekly inspection of first aid supplies and the replacement of inventory, whenever necessary.

6.7 Non-Employees

On arrival at the site, visitors, truckers, contractors and any other non-employees must be given clear instructions, by the employee responsible for their safety **(Name/Title)**, as to what they should do in the event of an emergency alarm. This will involve directing or escorting individuals to the Assembly Area and deciding whether non-company vehicles should be removed or left parked on the site.

7.0 EMERGENCY RESPONSE PROCEDURES

7.1 Discovery and Notification

If you discover a spill, you must immediately activate the nearest alarm and call for assistance using the plant radio system or the nearest telephone. You must then ensure that you are wearing the specified PPE and do everything you can to stop the source of the spill, without exposing yourself or others to any unreasonable risk

Similarly, if you discover a fire, you must immediately activate the nearest alarm and call for assistance using the radio system or the nearest telephone. .You must then ensure that you are wearing the specified PPE and do everything you can to extinguish or control the fire, without exposing yourself or others to any unreasonable risk.

During normal operating hours **(e.g. 0800-1700 hrs)**, as soon as the alarm is raised and the location of the emergency is reported, the duty Emergency Response Coordinator (ERC) will immediately go to that location and assume control of the situation. The duty Communications Officer (CO) and the duty Assembly Area Coordinator (AAC) will also immediately proceed to their respective locations and assume their designated responsibilities, under the direction of the ERC. All other persons on site will proceed immediately to the Assembly Area and await further instructions. The ERC will evaluate the situation, determine the necessary response and direct the CO to contact the appropriate individuals, organizations and/or agencies listed in Appendix V.

If you discover an emergency situation outside normal operating hours but are not alone on site, you must raise the alarm and then act as the ERC, by delegating communication duties and directing response activities until you are relieved.

If you discover an emergency situation outside normal operating hours but are alone on site, you must raise the alarm, contact the Fire Department, if necessary, and also attempt to contact one of the company personnel shown in Appendix V. The first person you contact will assume the responsibility for contacting other personnel so that you can concentrate on trying to control the emergency until help arrives.

If there is no one on site at the time of the emergency, company personnel will be notified by **(Insert monitoring company/security patrol/etc.)**. The first employee to arrive on site will act as the ERC until relieved.

7.2 Containment and Countermeasures - Spills

Our main concern is the safety of the people who are dealing with, or may be affected by a chemical spill. All personnel must wear the specified PPE and must not expose themselves and/or others to unreasonable risks. Unauthorized persons are not permitted in the area of the spill.

The first response must be to act promptly and stop the source of the spill if possible. This includes shutting off pumps and closing valves where applicable. Any mechanical production systems that may cause injury must also be shut down.

The worst case scenario is a spill outside the plant containment system. In this event, all drains, culverts and ditches must be blocked off and dams and dykes must be built around the spilled chemical, using earth, sand, booms, absorbents and/or neutralizing agents.,

Liquid chemical must be recovered as quickly as possible, using the most efficient means available, e.g. liquid recovery vacuum cleaner, vacuum truck, portable (submersible) pumps, suction hose to treating cylinder held under vacuum, etc., etc. **(List the available means and be as specific as possible)**

Remaining chemical must be absorbed and/or neutralized as follows: **(List chemical supplier's recommendations)**

The cleanup and disposal of contaminated materials must be carried out in consultation with the following regulatory authorities: **(List regulatory authorities)**

As precipitation will cause additional problems through dilution and run-off, the recovery and cleanup operations must not be suspended due to rain or snow, or if rain or snow is forecast.

7.3 Containment and Countermeasures - Fires

Our main concern is the safety of the people who are dealing with, or are affected by a fire which may involve chemicals. All personnel must wear the specified PPE and must not expose themselves and/or others to unreasonable risks. Unauthorized persons are not permitted in the area of the fire.

The first response must be to act promptly to prevent small fires from becoming major disasters. The source of any fuel for the fire must be shut off immediately and vehicles in the vicinity must be removed, if at all possible. Any mechanical production systems

that may cause injury must also be shut down. Electrical equipment must be disconnected at the main panel or entry.

Tanks and other vessels containing chemicals that are in the vicinity of the fire must be cooled with water, to minimize the risk of damage leading to release of the chemicals.

Wood piles in the vicinity of the fire should be removed or drenched with water to prevent them becoming a fuel source.

Provided there is no unreasonable risk to yourself or to others, you should attempt to control the fire using the measures described in Section 6.5, until the ERC or the Fire Department assumes control of the situation. If the fire is too large to be fought with on-site resources, then you should attempt to prevent it from spreading any further.

If there is any risk of a release of chemical or contaminated water from the containment at any time during the fire, **(Name/Title)** will be responsible for making the decision to allow the treating plant to burn down to avoid using more water.

All personnel, including the Fire Department must use respirators if there is any risk of exposure to toxic dust or gases.

All water used in fighting the fire, together with other residue and debris, is assumed to be contaminated and must be contained by berming or ditching the affected area.

The clean up and disposal of contaminated water and fire debris must be carried out in consultation with the following regulatory authorities.

(List regulatory authorities for your location)

As precipitation will cause additional problems through dilution and run-off, the containment of contaminated water and debris must not be suspended due to rain or snow, or if rain or snow is forecast.

The Provincial Emergency Program Office must be notified if it is suspected that contaminated run-off may have entered receiving waters.

7.4 Containment and Countermeasures – Radiation (For plants with XRF analyzers)

We use an **(specify name)** x-ray fluorescence (XRF) bench top analytical instrument for quality control procedures in the treating plant. This instrument is located in the

Laboratory and contains a radioactive source. Full details of this instrument can be found in the Laboratory Procedures Manual.

Under normal operating conditions, the XRF analyzer does not present a radiation hazard as the operator is well shielded from the source at all times. However, as a precaution, the XRF analyzer must be tested for radiation leaks every six months. **(Name/title)** is responsible for carrying out this test and submitting the leak test samples and certificate, in accordance with the instructions contained in the Laboratory Procedures Manual.

In the event of fire in the treating plant area, the XRF analyzer should be removed to a safe location to avoid damage that could result in a radiation leak. **(Name/title)** will be responsible for the safe relocation of the instrument.

However, if the instrument is damaged by fire or accident so that the source is no longer shielded, it should be placed in a plastic bag and be handled as little as possible. The Laboratory should then be locked and the door sealed with a warning sign to prevent access. The Atomic Energy Board (AEB) and the instrument manufacturer should then be contacted for advice and information regarding corrective action. See Appendix V for telephone numbers. **(Name/title)** will be responsible for handling the instrument, sealing the Laboratory and contacting the AEB and the manufacturer.

7.5 First Response Procedures

Appendix II, "Spill and Fire Response Procedures", contains summaries of the first response procedures for both spills and fires.

(Name/Title) is responsible for ensuring that these summaries are posted and maintained in offices, control rooms and all the high risk areas shown in Appendix I

8.0 Documentation and Cost Accounting

The Communications Officer (CO) is responsible for documenting the details of the emergency. All major events and activities and their timing must be clearly identified so that we have a detailed record of the situation.

The Emergency Response Coordinator (ERC) is responsible for preparing a comprehensive report of the emergency for senior management. The report will identify any weaknesses in our response activities and if necessary, suggest revisions to our plan and procedures to improve their effectiveness.

The ERC's report will also record all invoices for costs incurred during the emergency. The invoices will be checked against the CO's record of the situation.

APPENDIX I
SITE PLAN AND PLANT LAYOUT

The contents of Appendix I will be site plan and plant layout drawings, which should clearly show the location of the following:

- Plant boundaries and site access routes.
- Utility mains (gas, water and hydro) and shut off or disconnect points.
- Ditches, drains and stormwater runoff routes and exit points.
- Adjacent building occupancies and land use.
- Treating plant, boiler/thermal plant and all other buildings and their function.
- Chemical and fuel storage buildings and structures.
- Treated and untreated wood storage yards.
- Manual alarms and telephones.
- High risk areas for spills and fires.
- Evacuation routes and Assembly Area.
- Spill control and other emergency response equipment storage.
- Personal protective equipment storage.
- Fire fighting equipment including hydrants, hoses, extinguishers, water barrels etc.
- First aid supplies and equipment.

The plant layout will be prominently displayed in the treating plant and plant office.

APPENDIX II

SPILL AND FIRE RESPONSE PROCEDURES

FIRST RESPONSE SUMMARIES

POST IN ALL HIGH RISK AREAS SHOWN IN APPENDIX I

FIRST RESPONSE PROCEDURES

SPILLS

1. ENSURE THE SAFETY OF ALL PERSONNEL

Sound the alarm and recruit personnel in the immediate area to assist you.
Call for First Aid personnel and an ambulance, if necessary.
Evacuate personnel to Assembly Area, if necessary.
Wear the necessary personal protective equipment (PPE).
Avoid contact with liquid chemicals and stay away from vapours.

2. STOP THE FLOW

Identify the source and stop/reduce the flow without endangering yourself or others.
Shut down pumps, close valves and shut off power where applicable.
Eliminate all sources of ignition.
Shut down any mechanical production systems that may cause injury.

3. ASSESS AND NOTIFY

Assess the situation in terms of severity and risk.
Brief the duty Emergency Response Coordinator (ERC) when he/she arrives.
Initiate internal and external notification as required.

4. CONTAIN THE SPILL

Contain the spill using appropriate measures (booms, sand or earth dykes etc.)
Block off all storm drains, culverts and ditches that might receive the spill.

5. RECOVER THE SPILL

Pump all free liquid to tanks or secure containment areas, as quickly as possible, using the most efficient means available.
Use absorbents and neutralizing agents, if appropriate, to deal with any remaining chemical.

6. CLEAN UP

Clean up and dispose of all contaminated materials in consultation with **(identify regulatory authority)**.
Assess site contamination and assist with the preparation of an Incident Report.
Inspect spill response equipment and PPE and replace where necessary.

DO NOT TAKE UNNECESSARY RISKS!

FIRST RESPONSE PROCEDURES

FIRES

1. ENSURE THE SAFETY OF ALL PERSONNEL

Sound the alarm and recruit personnel in the immediate area to assist you.

Call for First Aid and an ambulance, if necessary.

Evacuate personnel to Assembly Area or a safe area, if necessary.

Wear the necessary personal protective equipment (PPE).

Avoid inhalation of smoke, dust or gases produced by the fire.

2. CONTAIN THE FIRE

Identify the source of the fire and select the appropriate fire fighting equipment.

Fight the fire to prevent it spreading, without endangering yourself or others.

Eliminate or remove all sources of ignition and fuel in the vicinity of the fire.

Remove all vehicles in the vicinity, if possible, to avoid explosions.

Shut down any mechanical production systems that may cause injury.

If the treating plant is at risk, secure all process equipment to prevent the release of chemicals.

Make provisions to contain all contaminated fire fighting water.

Remove the XRF analyzer to a safe location to prevent a radiation leak. (if applicable)

3. ASSESS AND NOTIFY

Assess the situation in terms of severity and risk.

Brief the Emergency Response Coordinator (ERC) and the Fire Department when they arrive.

Initiate internal and external notification, as required.

4. MINIMIZE THE EFFECTS OF THE FIRE

Assist the Fire Department, as directed by the ERC.

Spray tanks and other vessels containing chemicals with water to prevent damage which may cause the release of the chemicals.

All wood piles in the vicinity of the fire must be either removed or drenched with water to prevent them becoming a fuel source.

Construct berms, dykes or ditches to contain fire fighting waters and other residues.

5. CLEAN UP

Clean up and dispose of all contaminated water and fire debris in consultation with **(identify regulatory authority)**.

Assess damage and any site contamination and prepare an Incident Report.

Inspect fire fighting equipment and PPE and replace where necessary.

DO NOT TAKE UNNECESSARY RISKS!

APPENDIX III
CHEMICAL AND FUEL INVENTORY
AND SAFETY DATA

Appendix III summarizes the average volumes of all chemicals and fuels which are normally maintained at the plant.

1. TREATING PLANT

List all process tanks including effluent tanks and show their capacities, normal operating volumes and concentrations for each preservative system in use and locate on site plan.

List all drums and totes of preservative additives together with their capacities.

List all cylinders and their solution volumes.

List all liquid waste storage tanks, sludge and solid waste drums and totes, together with average volumes.

2. CHEMICAL STORAGE BUILDINGS

Describe and identify the location of all buildings and other structures used for the storage of chemicals.

List all solid preservatives and preservative components together with average inventory volumes.

List all liquid preservative components and additives together with average inventory volumes.

List all other chemicals and solvents used to operate and maintain the plant, together with average inventory volumes.

3. FUELS AND LUBRICANTS

Describe and identify the location of all buildings and other structures used for the storage of fuels and lubricants.

List all fuels and lubricants together with average inventory volumes.

4. MATERIAL SAFETY DATA SHEETS (MSDS)

Insert current MSDS for all preservatives, preservative components and additives, solvents, fuels lubricants and all other chemicals used by the plant.

APPENDIX IV
EMERGENCY RESPONSE EQUIPMENT

Appendix IV contains the list of emergency response equipment that must always be available at the plant. The Appendix must clearly describe each item of equipment and show the minimum quantity that must be maintained in each storage location.

The type and quantity of equipment will be site specific and the requirements for absorbents, neutralizing agents and other items for individual plants should be determined in conjunction with the chemical supplier.

Due to differences in preservatives, equipment, operating practices, geographic location, climate, site topography and site characteristics, plants must ensure that they have a complete range of emergency response equipment to suit their particular situation.

The following list is offered as a guideline only:

- Large and small boom socks.
- Boxes of absorbent "wicks".
- Rolls of absorbent material.
- Bags of granular absorbent.
- Bags of neutralizing agent(s) for preservative chemicals.
- Drain covers or drain plug kits.
- Sand stockpiles.
- Rain suits or impermeable coveralls.
- Splash proof chemical goggles and face masks.
- Hard hats.
- Full and half face respirators, including spare cartridges.
- Self contained breathing apparatus. (At least two sets per plant)
- Oxygen sensors.
- Neoprene rubber gauntlets.
- Neoprene steel-toed boots.
- Flood lights.
- Extension cords.
- Flash lights.
- Squeegees.
- Shovels.
- Brooms.
- Rakes.
- Wheelbarrows.
- Clean, lined drums and drum liners.
- Plastic or vinyl sheeting.

Plastic bags.
Etc., etc., etc.

**THERE IS NO SUCH THING AS TOO MUCH EMERGENCY RESPONSE
EQUIPMENT!**

APPENDIX V
NOTIFICATION LISTS

Appendix V lists the names, titles, telephone and fax numbers of individuals, agencies and companies that may have to be contacted, in the event of an emergency.

(Name/Title) is responsible for ensuring that these lists are kept up to date as required.

The following lists are offered as a guideline for the preparation of this Appendix.

1. Company List

Plant Management.

Emergency Response Coordinators.

Communications Officers.

Assembly Area Coordinators.

Emergency Response Team.

Fire Crew.

Rescue Team (including First Aid personnel).

All other employees.

2. External Emergency Resources List

Police.

Fire Department.

Ambulance.

Hospital.

Poison Control Centre.

Preservative, chemical and fuel suppliers.

XRF Analyzer manufacturer (if applicable)

Spill response equipment suppliers.

Utility companies (gas, water and hydro)

Sand suppliers and excavation contractors.

Emergency response and clean up contractors.

Other companies that can provide assistance, e.g. contractors with heavy machinery to construct ditches and dykes, oil refineries with access to foam fire fighting equipment.

3. Agency List

Municipal Emergency Program.

Provincial Emergency Program.

Federal authorities.

Atomic Energy Board (if applicable).

4. Neighbours List

List all business and residential property owners in the vicinity of the plant that may be affected by a spill or a fire.

5. Emergency Communications

Emergency communication strategies tend to assume that telephone services will always be available. This may be a dangerous assumption, particularly in remote areas. Therefore plants should be aware that amateur radio operators (hams) have created Emergency Services Networks across the country, in collaboration with telephone companies and municipal, provincial and federal emergency agencies. These networks will provide effective communication with emergency services when telephone systems have failed. Further details related to participation in Emergency Services Networks can be obtained from Provincial Emergency Program offices.