APPENDIX I

Emergency Plan

This appendix presents the emergency plan for the Starbuck Power Project (SPP). This plan was developed to provide for public safety and environmental protection both on and off the project site in the event of a natural disaster or major incident relating to or affecting the generation plant.

Starbuck Power Company, L.L.C. (SPC) will coordinate efforts with local emergency and/or medical agencies (police, fire services, emergency medical services, Washington Department of Ecology, the local emergency planning commission, and other organizations) to mitigate potential emergency situations. Generation plant managers, supervisors, and employees will receive regular training to ensure that effective and safe action will be taken to limit the effects of an emergency at the generation plant site.

At this time there has been no formal agreement between SPC and the local emergency support agencies. The emergency agencies are aware of the proposed power plant, and a formal agreement will be forged once the SPC staff is selected.

This emergency plan addresses the following events:

- Construction
- Plant evacuation
- Fire and explosion
- Onsite natural gas release
- Chemical spill or release
- Oil spill or release
- Abnormal weather
- Earthquake
- Volcanic eruption
- Medical emergency
- Facility blackout
- Facility bomb threat
- Onsite ammonia release
- Offsite ammonia release

Each section of this appendix addresses immediate actions, secondary actions, notifications, evacuation, emergency signals, and responsibilities, as appropriate.

I.1 Construction

This section discusses the three most probable construction-related emergencies:

- Medical situations
- Fire

- Spill or release of hazardous materials

It should be noted that the generation plant will be constructed by contractors experienced in the construction of gas-fired electrical generation plants and with the construction of gas pipelines. The construction specifications will require that contractors prepare and implement a safety program that includes an emergency plan. The exact details of the contractors' plans are not known at this time because each subcontractor has a somewhat different program. The contractors' emergency plans will address all information required by local, state, and federal regulations and the information described in this section. A complete emergency plan will be submitted once the contractors are selected and they have submitted a complete and approved emergency plan. These plans will comply with WAC 173-303.

I.1.1 Medical Emergencies during Construction

Key construction personnel will be trained in first aid, cardiopulmonary resuscitation (CPR), and rescue breathing in accordance with state, local, and federal regulations. First aid and bloodborne pathogen kits will be maintained onsite by the general contractor.

Emergency medical care is available at Dayton General Hospital ([509] 382-2531). This medical center is 24 miles from the generation plant. The approximate travel time is 41 minutes.

I.1.1.1 Immediate Actions

The situation will be assessed and, if needed, emergency medical assistance will be summoned by calling 911.

First aid will be administered by a trained first aider until medical assistance arrives. Evaluation of the injured at the scene will be performed using the following steps:

- Determine whether it is safe for the rescuer and victim to remain in the area.
- Survey the victim to make sure that the injured person is breathing, his or her heart is beating, and he or she is not bleeding. These issues must be addressed first.
- Obtain offsite medical assistance.
- Keep the victim calm, warm, and quiet until medical help arrives.

I.1.1.2 Secondary Actions

All occupational accidents, injuries, or illnesses will be reported immediately to the construction superintendent and designated site safety officer. Incident investigation procedures will be implemented.

In cases of severe personnel injury, the injured person's next of kin will be notified either in person or by telephone, at the discretion of the construction superintendent.

In cases of death, which can only be declared by a medical practitioner, the victim will not be moved, even if it appears that death is certain. NOTE: An accident resulting in death could require investigation. It is illegal to move the deceased without the approval of the coroner or proper legal authority.

The Occupational Safety and Health Administration (OSHA) will be notified within 8 hours of a death at the construction site or when three or more people have been hospitalized.

I.1.1.3 Notification

After a medical emergency has been identified, the construction manager and construction safety and health officer will be notified. Information concerning the time, nature, location, and extent of injury will be given, if possible. The plant safety and health coordinator will be responsible for reporting accidents in accordance with state, local, and federal requirements.

I.1.1.4 Evacuation

Evacuation of any injured personnel from the construction site will generally be by ambulance.

I.1.2 Fire during Construction

There is potential for an accidental grass or crop fire to be caused by construction vehicles operating in dry grass or by sparks thrown from a welding or cutting torch.

There is also a risk associated with the use and storage of small quantities of flammable liquids and compressed gases, including construction equipment fuels, paints, and cleaning solvents. Hazards associated with these materials will be mitigated by following construction safety requirements found in Washington Administrative Code (WAC) 296-155 and 29 Code of Federal Regulations (CFR) 1926 (OSHA).

Water for fire suppression during construction will be obtained from the onsite well, which will be drilled and developed prior to beginning construction of the rest of the plant. The contractor will have fire extinguishers onsite to address any small fire that can be extinguished in its infancy. For larger fires, fire-fighting equipment will be supplied by the local fire department.

I.1.2.1 Immediate Actions

- Stop all hot work.
- Shut down all fuel if necessary.
- Assess the size of the fire and the resources available to suppress it.
- If the fire is small enough, extinguish it.
- Notify others in the area.
- Notify the shift foreman and local fire department if necessary (see "Notification" below).
- Conduct a head count.
- Evacuate the area if necessary.

I.1.2.2 Secondary Actions

- Assess the size of the fire and the areas affected by it.

- Determine the cause of the fire.
- Prepare documentation in accordance with incident reporting requirements.

I.1.2.3 Notification

Notify the following authorities:

- Construction manager and shift foreman
- Hooper Fire Department, at 911 or (509) 549-3500—if the fire cannot be easily extinguished with onsite equipment and personnel

I.1.2.4 Evacuation

Evacuation of the construction site as a result of fire is unlikely. Should evacuation be needed, it will be conducted in accordance with procedures defined in the general contractor's construction safety and health program.

I.1.3 Release of Hazardous Materials during Construction

To minimize the potential release of hazardous materials during construction, best management practices will be employed. These will include good housekeeping measures, inspections, the use of containment facilities, and spill prevention practices. **REFER TO SECTION I.13 FOR PROCEDURES INVOLVING AN ONSITE AMMONIA RELEASE DURING CONSTRUCTION.**

If required, a licensed waste contractor will treat or dispose of spilled materials and affected soil in compliance with all federal, state, and local regulations.

I.1.3.1 Immediate Actions

- Determine what was released and how much was released.
- Notify others in the area.
- Notify the shift foreman.
- Obtain proper personal protective equipment.
- Contain the spill.
- Stop the leak if it is accessible.

I.1.3.2 Secondary Actions

- Assess the cause of the release.
- Fill out the appropriate paperwork.
- Notify the appropriate individuals.
- Notify the appropriate agencies.

I.1.3.3 Notification

Notify the following authorities:

- Construction manager and shift foreman

If it is determined that a reportable quantity has been released (see Section I.6), the following agencies must be notified:

- National Response Center: (800) 424-8802
- Washington Community Right-to-Know Unit: (800) 258-5990
- Washington Department of Ecology: (509) 456-2926

If outside resources are required to assist with the cleanup or containment of the release, the following will be contacted:

- The local police department, at 911
- Columbia County Sheriff's Department, at 911 or (509) 382-2518
- Hooper Fire Department, at 911 or (509) 549-3500

I.1.3.4 Evacuation

Evacuation of the construction site as a result of hazardous materials release is unlikely. Should evacuation be needed, it will be conducted in accordance with procedures defined in the general contractor's construction safety and health program.

I.2 Plant Evacuation

Should an emergency situation deteriorate to the point where the safety of personnel working in the generation plant is compromised, the plant manager or a designated individual will activate an evacuation alarm.

I.2.1 Immediate Actions

Whenever the alarm is sounded, plant personnel will do the following:

- Immediately shut down all hot work (such as welding, cutting, drilling, grinding, and smoking).
- Turn off all natural gas and fuel lines and isolate all flammable material.
- Shut down all motorized equipment, such as generators, compressors, and vehicles.
- Escort any visitors, vendors, and subcontractors to the designated assembly area (this should be done by the visitors' key contact person).

Once all sources of ignition have been eliminated, all personnel will walk to a designated assembly area. After all personnel are accounted for, all employees not directly involved in the situation will sign out and be dismissed. Should any person not be accounted for, the plant manager or designated individual will be notified.

I.2.2 Assembly Area

Signs will define the primary and alternative emergency assembly areas. The use of alternative assembly areas will be determined depending on wind direction at the time of the emergency.

All personnel will remain at the emergency assembly areas until such time as the plant manager or a designated individual advises that the emergency is over and that personnel can return to the site or that personnel must leave the site. All personnel will sign out prior to leaving the assembly area.

I.2.3 Notification

Notify the following authorities:

- Bonneville Power Administration
- Other agencies, depending on the cause of evacuation

I.2.4 Evacuation

Follow the above protocol.

I.3 Fire or Explosion

Operation of the generation plant has an inherent risk of fire through mechanical failure, malfunctions in the electrical system, and human error. The risks associated with fire can be minimized through safe work habits, fire prevention, and training.

I.3.1 Immediate Actions

In the event of fire or explosion, the following immediate actions will be taken:

- Activate the fire alarm; call for emergency medical assistance if needed.
- Assess the size of the fire or explosion and evacuate personnel from the area if necessary.
- Extinguish natural gas fires by stopping the flow of gas. Extinguishing the fire by other means could allow the gas to reignite from the same or other sources.
- Extinguish other fires if they are small enough and resources are available for suppression; if not, call for outside assistance.
- Stop all hot work.
- Shut down all fuel lines if necessary.
- Open electrical supply breakers to the area if necessary.
- Conduct a head count.
- Verify that the fire control valves are open and operating in the vicinity of the fire and check the operational status of the fire pumps.

- The plant manager will activate the evacuation alarm if necessary.

I.3.2 Secondary Actions

- Assess the size and areas affected by the fire or explosion.
- Determine the cause of the fire.
- Fill out the appropriate documents.
- Notify the appropriate individuals.

I.3.3 Notification

Notify the following authorities:

- Plant manager and shift foreman
- The local police department, at 911
- Columbia County Sheriff's Department, at 911 or (509) 382-2518
- Hooper Fire Department, at 911 or (509) 549-3500

I.3.4 Evacuation

Evacuation of the generation plant would proceed as outlined in Section I.2, Plant Evacuation. Plant personnel will sign out and be asked to leave the site, should the situation progress to the point that the personnel are no longer needed to staff their posts or their well being is in danger if they remain.

I.4 Onsite Natural Gas Release

In the event of a natural gas release, an evacuation may be required if the release is in an amount sufficient to cause, or have the potential to cause, fire or explosion in the plant. After it is determined that there is a natural gas leak or release, the plant manager or shift foreman will be notified immediately.

Plant operators will be trained to recognize hazardous conditions within the plant related to the gas pipeline. Suspected natural gas leaks will be investigated using the site atmospheric monitor that measures the percentage of oxygen and explosive gases in the ambient air.

I.4.1 Immediate Actions

In the event of an onsite natural gas release (assuming that there is no related fire), the following immediate actions will be taken:

- Assess the seriousness of the situation and activate the alarm, if needed.
- Notify the plant manager or shift foreman.
- Close all fuel lines, if possible.
- Shut down all machinery.

- Notify plant personnel to assemble in protected areas
- If necessary, perform an emergency shutdown of all heating, ventilation, and air conditioning (HVAC) vents in the plant to reduce the movement of the gas to other areas and minimize the sparking potential.
- Call the maintenance department to verify that the fan and vent motors are in the off position.
- Ensure that all personnel are accounted for.
- The plant manager or shift foreman will activate the evacuation alarm if necessary.

I.4.1.1 Secondary Actions

In the event of an onsite natural gas release, the following secondary actions will be taken:

- Begin the notification procedures.

I.4.1.2 Notifications

Notify the plant management team:

- Plant manager or shift foreman
- Plant safety supervisor or lead engineer

I.4.1.3 Evacuation

Evacuation of the generation plant would proceed as outlined in Section I.2, Plant Evacuation.

I.5 Offsite Natural Gas Release

In the event of a natural gas release offsite, a release within ¼ mile of the plant, or a release that directly affects the plant, an evacuation of the facility may be required if the release is in an amount sufficient to cause, or have the potential to cause, fire or explosion in the plant. After it is determined that there is a natural gas leak or release, the plant manager or shift foreman will be notified immediately.

Plant operators will be trained to recognize hazardous conditions related to the gas pipeline. Suspected natural gas leaks will be reported to GTN immediately.

I.5.1 Immediate Actions

In the event of an offsite natural gas release (assuming that there is no related fire), the following immediate actions will be taken:

- Assess the seriousness of the situation.
- Notify the plant manager or shift foreman.
- Notify the gas company and local emergency crews.
- If necessary, close all fuel lines (if possible).

- If necessary, shut down all machinery.
- If necessary, notify plant personnel to assemble in protected areas.
- If necessary, perform an emergency shutdown of all heating, ventilation, and air conditioning (HVAC) vents in the plant to reduce the movement of the gas to other areas and minimize the sparking potential.
- Call the maintenance department to verify that the fan and vent motors are in the off position.
- The plant manager or shift foreman will activate the evacuation alarm if necessary.

I.5.1.1 Secondary Actions

In the event of an offsite natural gas release, the following secondary actions will be taken:

- Monitor the weather conditions and the wind direction.
- Begin the notification procedures.

I.5.1.2 Notifications

Notify the plant management team:

- Gas company
- Local emergency crews
- Plant manager or shift foreman
- Plant safety supervisor or lead engineer

I.5.1.3 Evacuation

If necessary, evacuation of the generation plant would proceed as outlined in Section 1.2, Plant Evacuation.

I.6 Chemical Spill or Release

In the event of an accidental release of hazardous chemicals, an evacuation may be required if the release is in an amount sufficient to cause, or have the potential to cause, harm to employees.

In the event of a chemical spill or release, the following policies will apply:

- All unqualified employees should remain clear of any spill or release of any hazardous material.
- If the release or spill is sufficient to warrant plant evacuation, all nonessential employees will leave the plant and proceed to the designated assembly area.
- No one is authorized to enter the release/spill areas without proper personal protective equipment (PPE), proper training, and direction from the individual in charge.

- PPE is required at all times until the hazard has been dissipated and this has been proven using proper testing procedures.

I.6.1 Immediate Actions

In the event of a chemical spill or release, the following immediate actions will be taken:

- Assess the seriousness of the situation and the chemicals involved; activate the plant alarm if needed.
- Notify the plant manager, shift foreman, and safety/environmental coordinator.
- Stop the release, if possible.
- Contain the spill as close to the source as possible.
- Clean up the spill or, if necessary, use outside contractors to clean up the spill.
- Ensure that all personnel are accounted for.
- The plant manager or shift foreman will activate the evacuation alarm if necessary.

I.6.2 Secondary Actions

- Determine the cause of the spill or release.
- Assess the damage caused by the release or resulting in the release.
- Obtain pertinent facts:
  - Name of the individual reporting the release
  - Date and time of the release
  - Type and concentration of the material released
  - Source and cause of the release
  - Location of the release
  - Quantity released
  - Medium (land, water, air) affected by the release
  - Threat posed by the release
  - Number and type of injuries or fatalities, if any
  - Cleanup status
  - Weather conditions
- Complete all appropriate paperwork.

I.6.3 Notifications

After it is determined that there is a hazardous chemical emergency, the plant manager and safety/environmental coordinator will be notified immediately.

- It is imperative that notification procedures be implemented if spilled oil material or a reportable quantity of a hazardous substance contaminates soil or water. A list of commonly used substances in a power plant and their reportable quantities is presented in Table I-1. Oil is not listed in this table, but any oil (or petroleum product) that impacts

soil or is released into public waters that results in an oily sheen is a reportable quantity. The main substances found at this facility and their reportable quantities are as follows:

- Aqueous Ammonia: 100 lb or 45.4 kg
- Hydrazine: 1 lb or 0.454 kg
- Tri-Sodium Phosphate: 5,000 lb or 2270 kg
- Diesel: Any amount that impacts soil, groundwater, or surface water.
- Oil: Any amount that impacts soil, groundwater, or surface water.

Once it is determined that a reportable quantity has been released, the following agencies must be notified:

- National Response Center: (800) 424-8802
- Washington Community Right-to-Know Unit: (800) 258-5990
- Washington Department of Ecology: (509) 456-2926

If outside resources are required to assist with the cleanup or containment of the release, the following will be contacted:

- The local police department, at 911
- Columbia County Sheriff's Department, at 911 or (509) 382-2518
- Hooper Fire Department, at 911 or (509) 549-3500

TABLE I-1
40 CFR Reportable Quantities

Hazardous Substance	Category	RQ in lb (kilograms)	Hazardous Substance	Category	RQ in lb (kilograms)
Acetaldehyde	C	1,000 (454)	Ammonium carbonate	D	5,000 (2,270)
Acetic acid	C	1,000 (454)	Ammonium oxalate	D	5,000 (2,270)
Acetone cyanohydrin	A	10 (4.54)	Ammonium silicofluoride	C	1,000 (454)
Acetyl bromide	D	5,000 (2,270)	Ammonium hydroxide	C	1,000 (454)
Acetyl chloride	D	5,000 (2,270)	Amyl acetate	D	5,000 (2,270)
Acrolein	X	1 (0.454)	Aniline	D	5,000 (2,270)
Acrylonitrile	B	l00 (45.4)	Antimony pentachloride	C	1,000 (454)
Adipic acid	D	5,000 (2,270)	Antimony tribromide	C	1,000 (454)
Aldrin	X	1 (0.454)	Antimony trichloride	C	1,000 (454)
Allyl alcohol	B	l00 (45.4)	Antimony trifluoride	C	1,000 (454)
Allyl chloride	C	1,000 (454)	Antimony trioxide	D	5,000 (2,270)
Aluminum sulfate	D	5,000 (2,270)	Antimony potassium tartrate	B	l00 (45.4)
Ammonia	B	l00 (45.4)	Arsenic trioxide	X	1 (0.454)
Ammonium carbamate	D	5,000 (2,270)	Arsenic disulfide	X	1 (0.454)
Ammonium tartrate	D	5,000 (2,270)	Arsenic trichloride	X	1 (0.454)
Ammonium sulfite	D	5,000 (2,270)	Arsenic trisulfide	X	1 (0.454)
Ammonium bisulfite	D	5,000 (2,270)	Arsenic pentoxide	X	1 (0.454)

TABLE I-1
40 CFR Reportable Quantities

Hazardous Substance	Category	RQ in lb (kilograms)	Hazardous Substance	Category	RQ in lb (kilograms)
Ammonium bifluoride	B	l00 (45.4)	Barium cyanide	A	10 (4.54)
Ammonium acetate	D	5,000 (2,270)	Benzene	A	10 (4.54)
Ammonium benzoate	D	5,000 (2,270)	Benzoic acid	D	5,000 (2,270)
Ammonium bicarbonate	D	5,000 (2,270)	Benzonitrite	D	5,000 (2,270)
Ammonium bichromate	A	10 (4.54)	Benzoyl chloride	C	1,000 (454)
Ammonium sulfide	B	l00 (45.4)	Benzyl chloride	B	l00 (45.4)
Ammonium thiocyanate	D	5,000 (2,270)	Beryllium fluoride	X	1 (0.454)
Ammonium fluoborate	D	5,000 (2,270)	Beryllium nitrate	X	1 (0.454)
Ammonium chromate	A	10 (4.54)	Beryllium chloride	X	1 (0.454)
Ammonium chloride	D	5,000 (2,270)	Butyl acetate	D	5,000 (2,270)
Ammonium sulfamate	D	5,000 (2,270)	Butyric acid	D	5,000 (2,270)
Ammonium fluoride	B	l00 (45.4)	Cadmium bromide	A	10 (4.54)
Cadmium chloride	A	10 (4.54)	Cupric acetate	B	l00 (45.4)
Cadmium acetate	A	10 (4.54)	Cupric nitrate	B	l00 (45.4)
Calcium arsenate	X	1 (0.454)	Cupric oxalate	B	l00 (45.4)
Calcium carbide	A	10 (4.54)	Cupric sulfate	A	10 (4.54)
Calcium arsenite	X	1 (0.454)	Cupric tartrate	B	l00 (45.4)
Calcium dodecylbensenesulfonate	C	1,000 (454)	Cupric sulfate ammoniated	B	l00 (45.4)
Calcium cyanide	A	10 (4.54)	Cyanogen chloride	A	10 (4.54)
Calcium chromate	A	10 (4.54)	Cyclochoxane	C	1,000 (454)
Calcium hypochlorite	A	10 (4.54)	2,4-D Acid	B	l00 (45.4)
Captan	A	10 (4.54)	2,4-D Estera	B	l00 (45.4)
Carbaryl	B	l00 (45.4)	DDT	X	1 (0.454)
Carbofuran	A	10 (4.54)	Diazinon	X	1 (0.454)
Carbon disulfide	B	l00 (45.4)	Dicamba	C	1,000 (454)
Carbon tetrachloride	A	10 (4.54)	Dichlobenil	B	l00 (45.4)
Chlordane	X	1 (0.454)	Dichlone	X	1 (0.454)
Chlorobenzene	B	l00 (45.4)	Dichlorobenzene	B	l00 (45.4)
Chloroform	A	10 (4.54)	Dichloropropane	C	1,000 (454)
Chlorpyrifos	X	1 (0.454)	Dichlorvos	A	10 (4.54)
Chromic acetate	C	1,000 (454)	Dieldrin	X	1 (0.454)
Chromic acid	A	10 (4.54)	Diethylamine	B	l00 (45.4)
Chromic sulfate	C	1,000 (454)	Dimethylamine	C	1,000 (454)
Chromous chloride	C	1,000 (454)	Dinitrobenzene	B	l00 (45.4)
Cobaltous bromide	C	1,000 (454)	Dinitrophenol	A	10 (4.54)
Cobaltous formate	C	1,000 (454)	Dinitrotoluene	A	10 (4.54)
Cobaltous sulfamate	C	1,000 (454)	Diquat	C	1,000 (454)
Coumaphos	A	10 (4.54)	Disulfoton	X	1 (0.454)

TABLE I-1
40 CFR Reportable Quantities

Hazardous Substance	Category	RQ in lb (kilograms)	Hazardous Substance	Category	RQ in lb (kilograms)
Cresol	B	l00 (45.4)	Diuron	B	l00 (45.4)
Crotonaldehyde	B	l00 (45.4)	Endosulfan	X	1 (0.454)
Cupric chloride	A	10 (4.54)	Endrin	X	1 (0.454)
Cupric acetoarsenite	X	1 (0.454)	Epichlorohydrin	B	l00 (45.4)
Ethion	A	10 (4.54)	Lead fluoborate	A	10 (4.54)
Ethylbenzene	C	1,000 (454)	Lead fluoride	A	10 (4.54)
Ethylene dibromide	X	1 (0.454)	Lead iodide	A	10 (4.54)
EDTA	D	5,000 (2,270)	Lead nitrate	A	10 (4.54)
Ferric ammonium citrate	C	1,000 (454)	Lead stearate	A	10 (4.54)
Ferric ammonium oxalate	C	1,000 (454)	Lead sulfate	A	10 (4.54)
Ferric chloride	C	1,000 (454)	Lead thiocyanate	A	10 (4.54)
Ferric fluoride	B	l00 (45.4)	Lindane	X	1 (0.454)
Ferric nitrate	C	1,000 (454)	Lithium chromate	A	10 (4.54)
Ferric sulfate	C	1,000 (454)	Malathion	B	l00 (45.4)
Ferrous ammonium sulfate	C	1,000 (454)	Malaic acid	D	5,000 (2,270)
Ferrous chloride	B	l00 (45.4)	Malaic anhydride	D	5,000 (2,270)
Ferrous sulfate	C	1,000 (454)	Mercaptodimethur	B	l00 (45.4)
Formaldyhyde	B	l00 (45.4)	Mercuric cyanide	X	1 (0.454)
Formic acid	D	5,000 (2,270)	Mercuric nitrate	A	10 (4.54)
Fumaric acid	D	5,000 (2,270)	Mercuric sulfate	A	10 (4.54)
Furfural	D	5,000 (2,270)	Mercuric thiocyanate	A	10 (4.54)
Guthion	X	1 (0.454)	Mercurous nitrate	A	10 (4.54)
Heptachlor	X	1 (0.454)	Methoxychlor	X	1 (0.454)
Hydrazine	X	1 (0.454)	Methyl mercaptan	B	l00 (45.4)
Hydrochloric acid	D	5,000 (2,270)	Methyl methacrylate	C	1,000 (454)
Hydrofluoric acid	B	l00 (45.4)	Methyl parathion	B	l00 (45.4)
Hydrogen cyanide	A	10 (4.54)	Mevinphos	A	10 (4.54)
Hydrogen sulfide	B	l00 (45.4)	Mexacarbate	C	1,000 (454)
Isoprene	B	l00 (45.4)	Monoethylamine	B	l00 (45.4)
Isopropanolamine dodecylbenzeoesulfonate	C	1,000 (454)	Monomethylamine	B	l00 (45.4)
Kepone	X	1 (0.454)	Naled	A	10 (4.54)
Lead acetate	A	10 (4.54)	Naphthalene	B	l00 (45.4)
Lead arsenate	A	10 (4.54)	n-Butyl phthalate	A	10 (4.54)
Lead chloride	A	10 (4.54)	Naphthenic acid	B	l00 (45.4)
Nickel ammonium sulfate	B	l00 (45.4)	Propylene oxide	B	l00 (45.4)
Nickel sulfate	B	l00 (45.4)	Pyrethrins	X	1 (0.454)
Nickel chloride	B	l00 (45.4)	Quinoline	D	5,000 (2,270)
Nickel hydroxide	A	10 (4.54)	Resorcinol	D	5,000 (2,270)
Nickel nitrate	B	l00 (45.4)	Selenium oxide	A	10 (4.54)

TABLE I-1
40 CFR Reportable Quantities

Hazardous Substance	Category	RQ in lb (kilograms)	Hazardous Substance	Category	RQ in lb (kilograms)
Nitric acid	C	1,000 (454)	Silver nitrate	X	1 (0.454)
Nitrobenzene	C	1,000 (454)	Sodium fluoride	C	1,000 (454)
Nitrogen dioxide	A	10 (4.54)	Sodium hydrosulfide	D	5,000 (2,270)
Nitrophenol	B	l00 (45.4)	Sodium methylate	C	1,000 (454)
Nitrotoluene	C	1,000 (454)	Sodium hydroxide	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)	Sodium phosphate, tri	D	5,000 (2,270)
Parathion	X	1 (0.454)	Sodium selenite	B	l00 (45.4)
Pentachlorophenol	A	10 (4.54)	Sodium hypochlorite	B	l00 (45.4)
Phenol	C	1,000 (454)	Sodium phosphate, di	D	5,000 (2,270)
Phosgene	A	10 (4.54)	Sodium nitrite	B	l00 (45.4)
Phosphoric acid	D	5,000 (2,270)	Sodium arsenite	X	1 (0.454)
Phosphorus pentasulfide	B	l00 (45.4)	Sodium bisulfite	D	5,000 (2,270)
Phosphorus oxychloride	C	1,000 (454)	Sodium chromate	A	10 (4.54)
Phosphorus trichloride	C	1,000 (454)	Sodium bifluoride	B	l00 (45.4)
Phosphorus	X	1 (0.454)	Sodium bichromate	A	10 (4.54)
Polychlorinated biphenyls	X	1 (0.454)	Sodium	A	10 (4.54)
Potassium arsenate	X	1 (0.454)	Sodium arsenate	X	1 (0.454)
Potassium arsenite	X	1 (0.454)	Sodium cyanide	A	10 (4.54)
Potassium hydroxide	C	1,000 (454)	Strontium chromate	A	10 (4.54)
Potassium bichromate	A	10 (4.54)	Strychnine	A	10 (4.54)
Potassium cyanide	A	10 (4.54)	Styrene	C	1,000 (454)
Potassium chromate	A	10 (4.54)	Sulfur monochloride	C	1,000 (454)
Propargite	A	10 (4.54)	Silvex (2,4,5-TP)	B	l00 (45.4)
Propionic acid	D	5,000 (2,270)	Sulfuric acid	B	l00 (45.4)
Propionic anhydride	D	5,000 (2,270)	TDE	X	1 (0.454)
Tetraethyl pyrophosphate	A	10 (4.54)	Zinc borate	C	1,000 (454)
Tetraethyl lead	A	10 (4.54)	Zinc ammonium chloride	C	1,000 (454)
Thallium sulfate	B	l00 (45.4)	Zinc acetate	C	1,000 (454)
Toluene	C	1,000 (454)	Zinc phosphide	B	l00 (45.4)
Toxaphene	X	1 (0.454)	Zinc hydrosulfite	C	1,000 (454)
Trichlorfon	B	l00 (45.4)	Zinc nitrate	C	1,000 (454)
Trichlorophenol	A	10 (4.54)	Zinc formate	C	1,000 (454)
Trichloroethylene	B	l00 (45.4)	Zinc fluoride	C	1,000 (454)
Uranyl acetate	B	l00 (45.4)	Zinc cyanide	A	10 (4.54)
Uranyl nitrate	B	l00 (45.4)	Zinc phenolsulfonate	D	5,000 (2,270)
Vanadium pentoxide	C	1,000 (454)	Zinc silicofluoride	D	5,000 (2,270)
Vanadyl sulfate	C	1,000 (454)	Zinc sulfate	C	1,000 (454)
Vinyl acetate	D	5,000 (2,270)	Zirconium sulfate	D	5,000 (2,270)
Vinylidene chloride	B	l00 (45.4)	Zirconium nitrate	D	5,000 (2,270)

TABLE I-1
40 CFR Reportable Quantities

Hazardous Substance	Category	RQ in lb (kilograms)	Hazardous Substance	Category	RQ in lb (kilograms)
Xylene	B	l00 (45.4)	Zirconium tetrachloride	D	5,000 (2,270)
Xylenol	C	1,000 (454)	2,4,5-T acid	C	1,000 (454)
Zinc carbonate	C	1,000 (454)	2,4,5-T amines	D	5,000 (2,270)
Zinc chloride	C	1,000 (454)	2,4,5.T esters	C	1,000 (454)
Zinc bromide	C	1,000 (454)	2,4,5-T salts	C	1,000 (454)

40 CFR 302.4 List of Hazardous Substances and Reportable Quantities. July, 2001. Categories list the code letters "X," "A," "B," "C," and "D," which are associated with reportable quantities of 1, 10, 100, 1,000, and 5,000 lb, respectively.

I.6.4 Evacuation

Evacuation of the generation plant would proceed as outlined in Section I.2, Plant Evacuation.

I.6.5 Primary Responsibilities

The primary responsibilities of the plant manager or designated individual, in the event of a chemical spill or release, are as follows:

- Coordinate and direct the response efforts at the scene of discharge to ensure an effective response.
- Collect pertinent facts about the discharge or release, such as the source and cause.
- Determine the nature, amount, and location of discharged or released materials.
- Determine the probable direction and time of travel of discharged or released materials.
- Determine the likely pathways to human and environmental exposure.
- Assess the potential impact on human health/welfare/safety and the environment.
- Estimate the potential impact on natural resources and property that may be affected.
- Set priorities for protecting human health/welfare/safety and the environment.
- Document costs.

I.7 Oil Spill or Release

I.7.1 Immediate Actions

In the event of an oil spill or release, the following actions will be taken immediately:

- Notify the control room and plant manager.
- Notify other personnel and evacuate the area, if necessary.

- Stop the release, if possible.
- Contain the spill as close to the source as possible.
- Clean up the spill or, if necessary, use outside contractors to clean up the spill.
- Protect all drains.
- Estimate all quantities (meaning the total spill released to the environment, or to water).
- If the spill is large, refer to the Spill Prevention and Control (SPC) Plan presented as Appendix E of this Application for Site Certification.

I.7.2 Secondary Actions

Follow the same actions discussed above in Section I.5, Chemical Spill or Release, Secondary Actions.

I.7.3 Notification

After it is determined that there is an oil spill or release, the plant manager and safety/ environmental coordinator will be notified immediately.

Any release of oil or petroleum product into public waters that results in an oily sheen is a reportable quantity. Once it is determined that a reportable quantity has been released, the following agencies must be notified:

- National Response Center: (800) 424-8802
- Washington Community Right-to-Know Unit: (800) 258-5990
- Washington Department of Ecology: (509) 456-2926

If outside resources are required to assist with the cleanup or containment of the release, the following will be contacted:

- The local police department, at 911
- Columbia County Sheriff's Department, at 911 or (509) 382-2518
- Hooper Fire Department, at 911 or (509) 549-3500

I.7.4 Evacuation

Evacuation of the generation plant, if required, would proceed as outlined in Section I.2, Plant Evacuation.

I.8 Abnormal Weather (Fog and Icing)

The plant will be designed to operate in all weather conditions. Abnormal weather, such as fog and icing, is not expected to affect plant operations.

I.8.1 Emergency Fog Procedures

I.8.1.1 Immediate Actions

The following procedures will be in effect as weather forecasts, newspapers, television, radio, and outside temperatures dictate:

- Personnel onsite at the time inclement weather sets in will remain on duty until replacement staff reach the plant site.
- Energize the plant lights such that all crucial areas are adequately illuminated—specifically, hazardous areas, fuel lines, tanks, and buildings.
- Ensure that all plant lighting is working effectively.

I.8.1.2 Secondary Actions

- Restrict or terminate all chemical transfers until weather conditions improve to the point at which the tank is visible in its entirety.
- Monitor weather reports on the radio or television for changing weather conditions.

I.8.1.3 Notification

Does not apply.

I.8.1.4 Evacuation

Does not apply.

I.8.2 Emergency Freeze Procedures

The following procedures will be in effect as weather forecasts, newspapers, television, radio, and outside temperatures dictate:

- Personnel onsite at the time inclement weather sets in will remain on duty until replacement staff reach the plant site.
- Drain water piping that is not freeze-protected; close valves as needed to prevent the flow of water into nonfreeze-protected piping.
- Set thermostats and energize electric heaters as needed. Ensure proper operation.
- Ensure that essential rolling stock is freeze-protected, fueled, and equipped for ready operation, and that maintenance for cold weather operation (such as the use of lighter weight lubrication oils) is completed in advance of the onset of icing conditions.
- Ensure that preparations are made for snow and ice removal.
- Ensure the following, and put in the daily log report to verify (any problems should be noted and recorded in the remarks section of the operations log sheets):
  - Heaters are operating normally.
  - Water tank temperature is within parameters.

– All exposed equipment and materials that could be covered with snow are marked, with flags or otherwise, to ensure location control.

I.8.2.1 Notification

Not required.

I.8.2.2 Evacuation

Not required.

I.9 Earthquake

Seismic evaluations completed as part of this Application for Site Certification have indicated that the chance of a serious earthquake occurring at this location is low.

An earthquake is a rapid shaking of the earth's crust caused by shifting plates beneath the earth's surface. This movement can cause structures to collapse, break gas pipelines, disrupt electrical and telephone service, and trigger landslides, flash floods, and fires. These events can result in panic, confusion, loss of fire protection services, and isolation from outside aid. Earthquakes strike suddenly, without warning, and can happen at any time. The original earthquake can be followed by aftershocks occurring in the subsequent hours, days, weeks, or even months.

I.9.1 Immediate Actions

The following procedures will be implemented in the event of an earthquake:

- Employees will shut off all power, hazardous liquids, and gas controls at their source, if possible.
- Employees will move away from windows and unsecured equipment and furniture.
- If employees are indoors and it is not feasible to exit the building, employees will place themselves under desks or doorway columns.
- When the shaking stops, all employees will proceed to the emergency assembly area for roll call.

I.9.2 Secondary Actions

- The plant manager or shift supervisor will appoint individuals to inspect, secure, and shut down the plant.
- When possible, fires will be extinguished with systems provided at the plant.
- The plant manager will give directions to assess damages and to formulate and initiate rescue or salvage operations.
- Because of the danger of aftershocks, personnel will be kept away from weakened structures until a thorough assessment of all damages can be completed.

I.9.3 Notification

Once it is determined that an earthquake has occurred, the following organizations should be notified:

- Gas supplier
- Bonneville Power Administration
- Local sheriff's office

I.9.4 Evacuation

Evacuation of the generation plant would proceed as outlined in Section I.2, Plant Evacuation.

I.10 Volcanic Eruption

A volcanic eruption is a release of gases, ash, and/or molten rock from below the earth's surface. These releases generally occur with a violent explosion, resulting in mud flows, floods, and earthquakes. Volcanic eruption can cause loss of electrical and telephone service, low visibility, fires, floods, diversion of river or stream water, and isolation from outside emergency resources.

Volcanic eruption could result in ashfall on the generation plant site. Volcanic ash can cause lung damage, respiratory problems, and death by suffocation (if it is extremely heavy). Ash clogs machinery, water filters, and air filters; causes electrical short circuits; damages computer equipment; and makes roads slippery. Communications and transportation may be disrupted over a large area.

Ashfall projections may be calculated prior to eruptive activity to guide expected emergency response actions. Precursory activity prior to eruptions may or may not provide early warning of impending eruptive activity.

I.10.1 Immediate Actions

The following actions will be taken in the event of an impending or actual volcanic eruption:

- Close or cover all building vents and initiate an emergency shutdown of the HVAC system to prevent ash from entering buildings.
- Cover exposed mechanical equipment and valves.
- Cover data processing equipment.
- Shut down all computers and other electronic equipment sensitive to dust.
- Pick up or remove any items that could be covered in ash or mark their location such that they can be located once they are buried in ash.
- Determine whether personnel should be sent home immediately before roads become unsafe or if personnel must be sheltered onsite.

I.10.2 Notification

Once it is determined that a volcanic eruption has occurred, the following individuals and organizations should be notified:

- The plant manager or shift foreman
- Gas supplier
- Bonneville Power Administration
- Local sheriff's office

I.10.3 Evacuation

The decision to shelter in-place or initiate a site evacuation will depend upon information concerning the safety of roadways. Evacuation of the generation plant would proceed as outlined in Section I.2, Plant Evacuation.

I.11 Medical Emergencies

Depending on the severity of the injury, standard first aid will be provided by plant personnel or an emergency medical service (EMS) contacted by calling 911. First aid kits and bloodborne pathogen kits will be located throughout the plant.

Emergency medical care is available at Dayton General Hospital ([509] 382-2531). This medical center is 24 miles from the generation plant. The approximate travel time is 41 minutes.

Plant personnel will be trained in first aid, cardiopulmonary resuscitation (CPR), and rescue breathing in accordance with state and local requirements.

Telephone communications for emergency response will be provided throughout the plant.

I.11.1 Immediate Actions

The situation will be assessed and, if needed, emergency medical assistance will be summoned by calling 911.

First aid will be administered by a trained first aider until medical assistance arrives. Evaluation of the injured at the scene will be performed using the following steps:

- Determine whether it is safe for the rescuer and victim to remain in the area.
- Survey the victim to make sure that the injured person is breathing, his or her heart is beating, and he or she is not bleeding. These issues must be addressed first.
- Obtain offsite medical assistance.
- Keep the victim calm, warm, and quiet until medical help arrives.

I.11.2 Secondary Actions

All occupational accidents, injuries, or illnesses will be reported immediately to the safety/environmental coordinator. Incident investigation procedures will be implemented.

In cases of severe personnel injury, the injured person's next of kin will be notified either in person or by telephone, at the discretion of the plant manager.

In cases of death, which can only be declared by a medical practitioner, the victim will not be moved, even if it appears that death is certain. NOTE: An accident resulting in death could require investigation. It is illegal to move the deceased without the approval of the coroner or proper legal authority.

OSHA will be notified within 8 hours of a death at the facility or when three or more people have been hospitalized.

I.11.3 Notification

After a medical emergency has been identified, the plant manager, shift foreman, and safety/environmental coordinator will be notified. Information concerning the time, nature, location, and extent of injury will be given, if possible. The plant safety and health coordinator will be responsible for reporting accidents in accordance with state, local, and federal requirements.

I.11.4 Evacuation

Evacuation of any injured personnel from the plant site will generally be by ambulance.

I.12 Facility Blackout

When events occur that cause a loss of station service power, protection of equipment is essential. Lubricating and cooling oil to turbine bearings and the water level in steam generators are the most critical items.

I.12.1 Immediate Actions

The following immediate actions will be taken:

- Ensure that emergency oil and water pumps are operating.

I.12.2 Secondary Actions

The following secondary actions will be taken:

- Bonneville Power Administration (BPA) will be contacted by the plant manager or designated individual to apprise them of the plant's condition and estimated restart time.
- If the transmission system is shut down, the generator circuit breaker connecting the generation plant to the 500-kilovolt (kV) transmission system will be opened immediately, if it is not already open. Station service switchgear will be checked, and breakers not opened by under-voltage will be opened.

- Once the transmission system is reenergized, equipment at the generation plant will be restarted as needed for protection and the unit will be restarted as permitted by the utility contact.

I.12.3 Notification

Notify the following authorities:

- Gas supplier
- Bonneville Power Administration
- Local sheriff's office

I.12.4 Evacuation

Evacuation of the generation plant would proceed as outlined in Section I.2, Plant Evacuation.

I.13 Facility Bomb Threat

Bomb threats to this type of facility are unusual. However, such threats are possible and would probably be made by telephone.

I.13.1 Immediate Actions

Should a bomb threat call be received, the person receiving the call must remain calm and keep the caller on the line as long as possible by asking that the message be repeated, obtaining as much information as possible.

Operating personnel will immediately search their work areas. All areas will be investigated, including light fixtures and drop ceilings.

The discovery of any suspicious or unknown items will be reported to the plant manager immediately. Personnel will be instructed not to disturb these items. The area will be secured to prevent any contact or exposure.

1. The person receiving the call will follow the attached **BOMB THREAT CALL REPORT GUIDE** and do the following:
   - Do not hang up phone.
   - Immediately notify the shift supervisor of the threat.
   - Get all information: the location, size, and appearance of the bomb; the time it will detonate; etc.
   - Alert another staff member to call the phone company to attempt a trace on the call.
   - Get the caller to talk as long as possible.
2. The shift supervisor will notify the plant manager and do the following:
   - Call the police department and request assistance.

– Make a decision concerning evacuation.

I.13.2 Secondary Actions

Not required.

I.13.3 Notification

Notify the following authorities:

- The local police department, at 911
- Columbia County Sheriff's Department, at 911 or (509) 382-2518

I.13.4 Evacuation

If the generation plant is evacuated, evacuation would proceed as outlined in Section I.2, Plant Evacuation. No one will reenter the plant until the police department has given an all clear to the plant manager.

I.13.5 BOMB THREAT CHECKLIST (Maintain at All Phones)

DO NOT INTERRUPT THE CALLER!!

Your Name:_____ Time: _____ Date:_____

Caller's Identity: Male Female **Caller's Approximate Age:** Years:____

Origin of Call: Local Long-distance Phone Booth Internal

Caller's Voice Is:

Slow	Fast	Soft	Loud	Local	Foreign
Accent	Calm	High-pitched	Distinct	Raspy	Stutter
Foul	Intoxicated	Slurred	Deliberate	Deep	Distorted
Angry	Nasal	Irrational	Laughing	Emotional	

Background Noise:

Office Machines		Factory Machines		Animals	Quiet
Street Traffic	Airplanes	Party Noise	Factory Noise	Music	Motor

Other_____

Bomb Facts: Keep Caller Talking. If caller seems agreeable to further conversation, ask questions like:

1. When is the bomb going to explode? What hour: _____ Time Remaining:____

2. Where is it planted? Building:_____ Area:_____

3. What kind of bomb is it?

4. What does it look like?

5. Do you know who placed the bomb?

5. Where are you now?

6. What is your name and address?

Did the caller appear familiar with the plant or building by description of the bomb location?

Write out the message in its entirety and any other comments on reverse side.

Immediately notify management after the bomb threat call.

I.14 Onsite Ammonia Release

This plan is written with the understanding that the plant's 60,000-gallon aqueous ammonia tank contains a solution of 19 percent ammonia. If spilled, the aqueous ammonia used onsite will be in a liquid form. The ammonia will off-gas quickly. This gas is hazardous to workers' skin, eyes, and respiratory tract.

In the event of an accidental release of ammonia at the plant, an evacuation may be required if the release is in an amount sufficient to cause, or have the potential to cause, harm to employees.

In the event of an ammonia release, the following policies will apply:

- All unqualified employees should remain clear of any spill or release of any hazardous material.
- If the release or spill is sufficient to warrant plant evacuation, all nonessential employees will leave the plant and proceed to the designated assembly area.
- No one is authorized to enter the release/spill areas without proper personal protective equipment (PPE), proper training, and direction from the individual in charge.
- PPE is required at all times until the hazard has been dissipated and this has been proven using proper testing procedures.

I.14.1 Immediate Actions

In the event of an ammonia release, the following immediate actions will be taken:

- Assess the seriousness of the situation, terminate transfer operations (if under way), and activate the plant alarm if needed.
- Evacuate the area.
- Provide emergency medical assistance if personnel are injured; call 911 if outside assistance is needed.
- Notify the plant manager, shift foreman, and safety/environmental coordinator.
- Protect persons downwind or in all directions as needed.
- Only under the guidance of the plant manager and safety/health supervisor—and if this can be done without risk—obtain proper PPE, attempt to stop the release, and dilute the spill with copious quantities of water.

I.14.2 Secondary Actions

- Determine the cause of the spill or release.
- Assess the damage caused by the release or resulting in the release.
- Obtain pertinent facts:
  - Name of the individual reporting the release

  - Date and time of the release
  - Source and cause of the release
  - Location of the release
  - Quantity released
  - Medium (land, water, air) affected by the release
  - Threat posed by the release
  - Number and type of injuries or fatalities, if any
  - Cleanup status
  - Weather conditions

- Complete all appropriate paperwork.

I.14.3 Notifications

If it is determined that a hazardous chemical emergency exists, the plant manager and safety/environmental coordinator will be notified immediately.

It is imperative that notification procedures be implemented if a reportable quantity of ammonia (100 pounds or more) is released. Once it is determined that a reportable quantity has been released, the following agencies must be notified:

- National Response Center: (800) 424-8802
- Washington Community Right-to-Know Unit: (800) 258-5990
- Washington Department of Ecology: (509) 456-2926

If outside resources are required to assist with the cleanup or containment of the release, the following will be contacted:

- The local police department, at 911
- Columbia County Sheriff's Department, at 911 or (509) 382-2518
- Hooper Fire Department, at 911 or (509) 549-3500

I.14.4 Primary Responsibilities

The primary responsibilities of the plant manager or designated individual, in the event of an ammonia release, are as follows:

- Coordinate and direct response efforts at the scene of discharge to ensure an effective response.
- Implement emergency response procedures if necessary.
- Collect pertinent facts about the discharge or release, such as the source and cause.
- Determine the amount and location of discharged or released materials.
- Determine the probable direction and time of travel of discharged or released materials; notify local officials if an offsite hazard may exist.
- Assess the potential impact on human health/welfare/safety and the environment.

- Estimate the potential impact on natural resources and property that may be affected.
- Set priorities for protecting human health/welfare/safety and the environment.
- Document costs.

I.15 Offsite Ammonia Release

An offsite ammonia release would involve vapor exiting the plant property. The precise response to an ammonia release would depend on the size of the spill. The following provides general procedures to use in the event of a large ammonia release that could affect people off the plant site. The main effect individuals offsite would experience would be an odor of ammonia very similar to household cleansers.

I.15.1 Immediate Actions

In the event of a large ammonia release involving vapor exiting the plant property (following an onsite release), the following immediate actions will be taken:

- Call 911, notify local authorities, and inform them of the situation.
- If required, evacuate and/or isolate the affected or potentially affected areas.
- If necessary, provide proper PPE to all persons that may need to enter affected or potentially affected areas.
- Document any information regarding individuals who may be experiencing adverse effects.

I.15.2 Secondary Actions

- Evaluate potential changes in weather patterns and notify the local authorities of any changes in the situation.
- Assess the damage caused by the release or resulting in the release.

I.15.3 Notification

Implement the notification procedures defined in Section I.14, Onsite Ammonia Release

I.15.4 Evacuation

If required, evacuate affected or potentially affected areas.