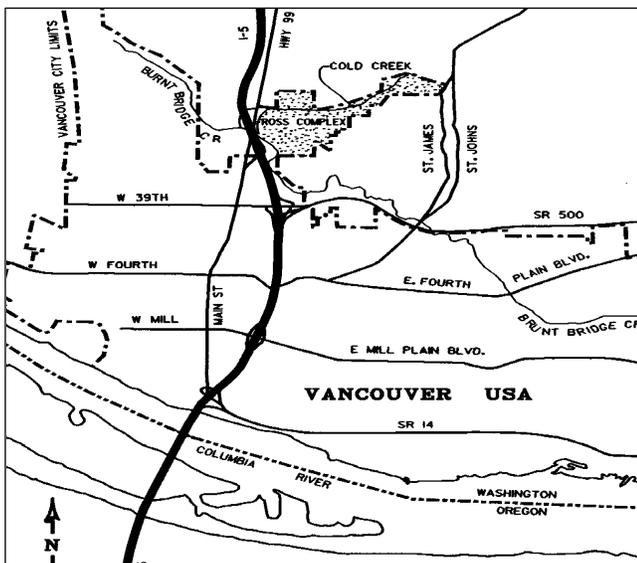


### Draft Dangerous Waste Permit Bonneville Power Administration BPA Ross Complex

The Washington State Department of Ecology (Ecology) issued a dangerous waste permit to the Bonneville Power Administration, Ross Complex (BPA) on March 15, 2001. The facility has been operating under that permit for the past ten years. BPA is owned by the U.S. Department of Energy and located in Vancouver, Washington (see stippled area on map below).

Ecology is seeking comments on the proposal to re-issue a permit for dangerous waste management at this facility. The permit authorizes and has requirements for storage and limited treatment of dangerous waste at BPA. Ecology will make a final decision on re-issuing the permit after we consider public comments on the draft permit.



This fact sheet summarizes:

- How the public can make comments on the draft permit.
- Activities at the dangerous waste management facility, including waste storage and limited treatment.
- Requirements in the draft permit for operating and closing the facility.
- Environmental cleanup at the facility.
- Reasons for not requiring review under SEPA.
- Ecology's process to make a final decision.

### Comment Period

Comments must be postmarked or hand delivered by:

**September 6, 2011 through  
October 21, 2011**

#### Submit comments on permit to:

Martin Werner  
WA Department of Ecology  
Hazardous Waste and Toxics  
Reduction Program  
P.O. Box 47600  
Olympia, WA 98504-7600  
E-mail: [mwer461@ecy.wa.gov](mailto:mwer461@ecy.wa.gov)

#### Hand deliver comments to the Ecology address listed below.

Review the information Ecology used to make their tentative decisions to issue the permit, between 9 a.m. and 4:30 p.m. at:

Department of Ecology - HWTR  
300 Desmond Drive  
Lacey, WA 98503  
Contact Martin Werner  
Phone: (360) 407-6710

Or by appointment at:  
BPA Ross Complex - Plant Services  
Bldg  
5411 NE Highway 99  
Vancouver, WA 98666  
Corner of NE 18th Ave. and Ross St.  
Contact: Lee Costanzo  
Phone: (360) 418-2443

For more information or a copy of Ecology's draft permit and fact sheet, contact Martin Werner at the mailing address, e-mail address, or phone number listed above; or visit our Web site: [www.ecy.wa.gov/programs/hwtr](http://www.ecy.wa.gov/programs/hwtr).

**Facility Site ID #: WA1 891 406 349**

## A. Facility Overview and History

BPA is part of the Department of Energy control center for the generation and transmission of electricity throughout the Pacific Northwest. The BPA dangerous waste management facility (facility) is located on a 250-acre property within the city limits of Vancouver, Washington. Waste management operations subject to this permit are in a single building on the Ross Complex, called the HazMat Building. However, “corrective action” requirements in the permit apply to the entire 250 acres. Corrective action means environmental remediation, or cleanup, of contamination that has occurred in the past. Corrective action at BPA is described later in this fact sheet.

The HazMat Building was constructed in 1993 to store and manage hazardous substances and wastes. These include dangerous waste, mineral oil dielectric fluid (MODF) used in electrical equipment, and other used oils. This permit specifically addresses facility design and operating requirements for dangerous waste management in the HazMat Building. Dangerous waste operations and requirements in this permit are described in Section D of this fact sheet.

MODFs contain varying concentrations of polychlorinated biphenyls (PCBs). MODFs with PCBs above 50 ppm (parts per million) are regulated by the U.S. Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA) regulations. Management of MODFs in compliance with TSCA regulations exempts those materials from regulation under the dangerous waste regulations. MODFs with less than 50 ppm PCBs are not regulated by TSCA; depending on their origins and PCB concentrations, they are regulated by the dangerous waste regulations or the used oil regulations. Therefore some, but not all, of the MODFs managed by BPA in the HazMat Building are subject to this permit.

BPA initially received a permit to manage dangerous waste in 2001. That permit expired on March 15, 2011.

This fact sheet describes Ecology’s decision to re-issue a dangerous permit to BPA. Ecology reviewed BPA’s operating history and practices when making this decision. Among others, the new permit has enhanced requirements for waste analyses, conducting inspections, and training personnel.

This re-issued permit will allow BPA to continue their dangerous waste management operations. They will continue to accept and manage the same types of wastes as they have been for years. Section D of this fact sheet provides more information on the facility’s operations and requirements in this draft permit.

## B. Procedures for Reaching Final Decisions

The public may review and comment on this draft permit. Ecology will consider all public comments before deciding whether to issue a final permit. Washington Administrative Code (WAC) 173-303-840(3) through (9) describe the public review process.

### Public Comment Period

September 6, 2011 through October 21, 2011 is the public comment period on Ecology’s tentative decisions to re-issue a dangerous waste management facility permit. See page one for information on submitting comments and reviewing documents.

### Public Hearing

Ecology will conduct a public hearing on this tentative decision if any member of the public requests one. To request a hearing, contact Martin Werner by phone, letter, or e-mail by October 5, 2011. If no one requests a public hearing, Ecology will cancel the hearing. To find out if the public hearing will be held, contact Martin Werner after October 10, 2011 at the number given in the front side panel on page one. If held, the public hearing will begin at 7 p.m. on October 12, 2011, at

Minnehaha Elementary School  
2800 NE 54th Street  
Vancouver, WA 98663

### How to Participate

You may review and comment on the draft permits. Information Ecology used to make their decision is available to you. See page one for locations and hours of availability. You must hand deliver or mail your comments by October 21, 2011, for ecology to consider them.

The most effective comments are those that:

- Provide specific information describing the condition the commenter believes is inappropriate.
- Provide factual and regulatory support for the comment.
- Suggest changes to fix the problem.
- Include supporting material, unless Ecology already has it. (For example, if the comment references a regulation on managing dangerous waste, Ecology already has it. If the comment references a report or letter that is not part of the application or the agency files on BPA, or is not a commonly available reference, then Ecology likely does not have it. In such cases, the commenter should provide a copy of the reference.)

WAC 173-303-840(6) provides details on raising issues and providing information during the public comment period.

### Decision-making Process

**Public comments and testimony** – Ecology will consider and respond to written comments and testimony from the public hearing. Ecology will mail responses to every person who commented or testified on the draft permit when we make a final permit decision.

**Final decisions** – After considering public comments and testimony, Ecology will make a final permit decision or a new tentative decision.

If Ecology re-issues a final permit to BPA, it will be valid for ten years from its effective date. However, BPA or Ecology staff can modify the permit at any time during that period. Permit

modifications are subject to public review. WAC 173-303-830 has procedures for modifying a permit and presents the types of permit changes that are subject to public review and comment.

Ecology will inform the facility and all people who comment during the public comment period of the final permit decision.

**Effective date of decision** – Normally, a permit is effective 30 days after Ecology gives notice of their final decision. However, if there are no comments on the draft permit, Ecology may specify an earlier effective date for the final permit. If Ecology makes a new tentative decision on this permit, there will be a new comment period.

**Appealing the final permit decision** – Ecology will make a final decision after considering and responding to comments from the public and the facility on the draft permit. People can challenge that final decision or any individual permit condition by appealing to the Pollution Control Hearings Board. Appeal procedures are in WAC 173-303-845 and Chapter 43.21B Revised Code of Washington (RCW).

### Ecology's Authorities and Responsibilities

Ecology regulates dangerous waste in Washington State. The Washington State Hazardous Waste Management Act, Chapter 70.105 RCW, and the Dangerous Waste Regulations, Chapter 173-303 WAC, regulate the management of dangerous waste. WAC 173-303-800 specifies that facilities such as BPA, which store and treat dangerous waste must obtain a permit.

EPA also has nationwide regulations for facilities that manage hazardous waste (Title 40 Code of Federal Regulations Parts 260-280). These regulations implement the federal Solid Waste Disposal Act of 1965, which has been amended by the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA). EPA authorizes Ecology to implement these federal regulations in Washington State. Therefore, Washington's



dangerous waste regulations are at least as stringent as the nationwide hazardous waste regulations.

Washington State's dangerous waste management program received authorization to implement the state dangerous waste regulations in lieu of the federal hazardous waste regulations on January 31, 1986. The state's program also received approval for revisions to the federal program. The last approval became effective July 28, 2010. Currently, Ecology's program is authorized for all aspects of the federal hazardous waste regulatory program that apply to BPA's dangerous waste management permit.

### C. State Environmental Policy Act

Ecology determined that re-issuing this permit does not require review under the State Environmental Policy Act (SEPA), Chapter 197-11 WAC. SEPA regulations exempts "license renewal" when there is no "material changes" in operations (see WAC 173-11-800(13)(i)).

Re-issuing this permit is a license renewal under definitions in the SEPA regulations, and there are no material changes in the way BPA will manage wastes under the permit. BPA will not increase their waste management capacity, manage different waste, or use different waste management processes. They will continue using existing structures and the same basic operations for waste management as under the previous permit. The re-issued permit is more specific about how they must meet some regulatory requirements.

When Ecology issued the initial permit in 2001, the agency determined there were no probable significant adverse environmental impacts of that proposal and issued a "Determination of Nonsignificance" (DNS) under SEPA regulations.

Re-issuing a final permit does increase the likelihood that dangerous waste management operations will continue indefinitely at the Ross Complex. If BPA proposes to increase or change these operations in the future, that proposal will require a permit modification subject to public

review. At that time, Ecology will consider whether that potential proposal would be subject to an environmental evaluation under SEPA.

### D. Facility Description Permit Requirements

The BPA dangerous waste management operating facility is located in a single building on the Ross Complex. This building is called the "HazMat Building." Operating requirements in the draft permit apply only to the facility.

Dangerous wastes generated at the Ross Complex may be accumulated where first generated without a permit. However, dangerous wastes cannot be kept at those locations for more than 90 days. Therefore, BPA transports wastes from their accumulation sites to the operating facility (i.e., the HazMat Building) before the 90-day generator time limit elapses. BPA can then store the wastes for as long as one year subject to requirements in this permit.

The facility also accepts waste from a number of BPA sites in their service area, but off the Ross Complex. This service area includes states neighboring Washington and parts of Montana, Wyoming, Nevada, Utah, and California.

The dangerous waste management facility accepts and manages a wide range of wastes including:

- Flammable and combustible wastes
- Corrosive wastes
- Reactive wastes
- Toxic wastes
- Oxidizers
- Oily wastes
- Industrial waste waters
- Solids and sludges

BPA is required to separate wastes that are incompatible with one another to minimize the possibility of dangerous reactions. The permit authorizes a maximum storage capacity of 31,240 gallons of dangerous waste in containers.



The facility accepts all wastes at a single receiving area. That area has low permeable coated concrete secondary containment. Facility personnel move the waste containers to separate long-term storage areas within 24 hours of receiving the wastes. The facility segregates wastes according to their chemical compatibility class in storage.

The major purpose of the facility is to accumulate sufficient numbers of containers to allow economic shipment to other off-site waste management facilities for treatment and recycling or disposal. The facility also does limited consolidation of chemically compatible wastes within containers. The facility has a shipping area used to prepare for off-site shipment of containerized waste.

During review of the permit application, Ecology ensured the design of all areas used for waste management met dangerous waste facility standards. The permit includes detailed conditions on how the areas are used, inspected, and maintained.

### **General Waste Management Requirements**

The permit requires the facility to properly operate and maintain all systems of waste management to achieve compliance with the dangerous waste regulations and specific conditions of the permit. BPA must ensure adequate funding, staffing, personnel training, and process controls to maintain compliance. BPA must tell Ecology if they are out of compliance with any of the permit requirements.

The permit is specific about how BPA must maintain compliance. If they need to change equipment or procedures for their waste management operation, BPA will need to modify the permit. The permit and regulations prescribe the process for permit modifications. It includes notification to the public about permit changes.

### **Waste Analysis Requirements**

Requirements for waste analysis are complex and critical for the safe operation of the facility.

WAC 173-303-300 requires facilities to have comprehensive and accurate information about the

composition of all wastes they manage. BPA has proposed additional detailed procedures for waste analysis to this permit. These include characterizing each "waste stream" before the waste stream can be shipped to the facility and verifying the identity of each waste stream when it enters the facility.

The number and variety of waste streams the facility manages is limited. The facility only manages dangerous wastes generated by BPA. The facility does not accept dangerous waste that is not from a BPA operation. The permit application provides specific information on the composition of the waste streams the facility routinely manages.

**Waste Characterization** - The permit requires reliable information on the composition of every waste stream the facility plans to accept. BPA must conduct sufficient analyses of every waste stream they manage to ensure:

- Safe and effective operation of waste storage.
- Compliance with the dangerous waste permit.
- Compliance with land disposal restrictions.

The permit supports the use of both "acceptable knowledge" and "laboratory analyses" to characterize a waste stream and complete a waste profile. BPA is required to have a current waste profile on each waste stream they manage. The profile has information on the waste stream's physical and chemical properties. It also outlines regulatory information, such as waste designation number(s) and land disposal restrictions of the waste stream.

Under this permit, BPA is required to review and recertify each waste stream profile every two years to ensure it is still current and accurate. BPA must also evaluate and correct the profile if the process generating the waste stream changes or if verification analyses indicate the waste stream has changed. BPA has a list of 22 specific waste streams that their operations generate on a routine basis. They call these "Identified Waste Streams" (IWS).



BPA requires operators at the generating sites to follow standard operating procedures so it is not common for an IWS to vary. The permit lists specific laboratory analyses they conduct on most of the IWSs every two years to ensure current and accurate waste profiles. A couple of IWSs are used commercial products, such as batteries, paint, and light tubes. The profiles of these materials are based on knowledge since the composition is known.

BPA's generating facilities may also generate dangerous wastes from cleanup activities or from non-routine maintenance operations (called "non-routine wastes"). These waste streams could be unique every time a new one is generated. The permit requires BPA to obtain information to develop a unique and reliable profile when a non-routine waste stream is generated.

All waste profiles must be current before the waste stream can be shipped to the facility. This means the profiles must be reviewed and approved by a trained BPA chemist within the time period and under the conditions specified in the permit.

In an emergency, the facility may receive an unknown or unidentified waste stream. In that case, the waste must be isolated from other wastes until the facility fully characterizes it and develops an acceptable profile.

The permit stresses that BPA is responsible for obtaining accurate and complete information for every waste stream it plans to manage. Insufficient information provided by a BPA generator is not an acceptable defense for mismanaging the waste at the facility.

**Waste Verification** - The permit specifies procedures and analyses the facility must do to verify the identity of each waste stream in every waste shipment that arrives at the permitted facility. There are two major purposes:

1. To verify that the incoming waste stream is the waste stream represented by the shipping papers and waste profile.

2. To verify information about the waste stream the facility needs to be able to manage it safely and effectively in compliance with the permit.

BPA personnel check every incoming container of waste to verify the paperwork matches the actual container and that the waste profile for that waste stream is current. They open every container to visually inspect that the waste matches its profile.

For large and medium quantity generators, the facility samples the tenth container of each waste stream to complete a set of laboratory screening analyses. This provides additional verification that the incoming waste stream matches its profile. The facility does this same sampling and analysis procedure on every tenth container from the aggregate of small quantity generator waste streams. If there is any question about the correct identity of the waste stream, BPA will conduct additional analyses to identify the waste stream.

**Procedures for Waste Discrepancies** - The permit requires a set of established procedures when waste verification identifies a problem or inconsistency with waste analysis information or shipping documentation. The facility isolates the discrepant waste containers and contacts the generator to begin resolving the problem. If the discrepancy can be resolved, the waste containers are transferred to storage. If the discrepancy is not resolved, the waste is sampled and analyzed to determine its identity. If it can be safely and legally stored based on these analyses, it is transferred to storage; if it cannot, the waste is shipped to another facility that can safely and legally manage it.

The permit also includes procedures for damaged waste shipments that pose a threat to human health or the environment. These procedures include steps to secure the shipment, clean up released materials, and notify Ecology and other agencies of the problem.

**Methods for Waste Sampling and Analysis** - The permit specifies methods for sampling and analyzing waste, including detailed quality assurance and quality control (QA/QC) measures.



## Security

The entire 250 acres of the Ross Complex is surrounded by a chain link fence. The main gate into the Ross Complex is attended by security guards who limit access to authorized employees and visitors who have entry clearance. Other gates are closed and locked except when used by employees with authorized access. A separate entry gate for trucks is attended by a security guard when deliveries are scheduled, and is locked at all other times.

The HazMat building where dangerous wastes are managed under this permit remains locked at all times. This building is equipped with a card key activated security system. To access the HazMat building a person must first enter the Ross Complex itself, and then satisfy security to enter this locked building.

## Inspections

BPA will conduct a series of periodic inspections of the facility. These inspections detect and prevent malfunctions, deterioration, operator error, and releases from the unit that could cause harm to human health or the environment.

A few inspections included under the permit are:

- Daily inspections of secondary containment areas for leaks and spills, with immediate action if leaks or spills are detected.
- Weekly inspections of secondary containment for evidence of cracks or other forms of deterioration.
- Monthly inspections to ensure fire extinguishers are fully charged.
- Biannual detailed integrity inspections of containment sumps by a knowledgeable person not associated with the permitted unit.
- Annual inspections of areas where ignitable and reactive wastes are stored by a professional familiar with the International Fire Code.

BPA supplements their daily visual inspections for leaks with an automatic alarm system in all dangerous waste storage areas. The system is

designed and operated to detect liquids released from containers. If the system detects a release of liquid, it activates an alarm to alert the on-site security guard. The guard will then notify trained facility personnel.

The permit specifies unacceptable conditions observed during the required inspections as well as actions and schedules required to address unacceptable conditions.

The facility must document results of all required inspections and any actions taken to address problems discovered.

## Emergency Planning

The permit includes a formal contingency plan the facility will follow in the case of an emergency in the HazMat building. The plan includes specific procedures for responding to different types of emergencies, such as explosions, fires, spills, or releases. The permit also specifies emergency equipment and supplies BPA must keep in the HazMat building at all times to respond to potential emergencies.

The permit clearly specifies criteria for incidents that must be immediately reported to Ecology. It also has criteria for incidents that require implementation of contingency plan procedures. If the facility implements the contingency plan, they must provide a written report to Ecology within 15 days. The report must describe the incident, explain its causes, describe emergency responses, assess environmental damage, and list steps taken to prevent recurrence.

The facility must also notify Ecology of incidents of noncompliance with the permit. If the noncompliance could threaten human health or the environment, the facility must notify Ecology immediately. For other noncompliance, the facility must notify Ecology in their next monitoring report but no later than six months after the incident.



The permit identifies a trained emergency coordinator who directs emergency response procedures. The emergency coordinator is authorized to use BPA funds that are needed to respond to any emergency. The person assigned as an emergency coordinator must meet qualifications and be trained according to the requirements outlined in the permit. The permit also specifies an alternate emergency coordinator in case the primary person is not available to assume the responsibility and duties.

BPA has attempted to establish coordination agreements with local emergency response providers and with state and local emergency response teams. BPA listed the following groups within their contingency plan and can request assistance from these groups in an emergency:

- Vancouver Fire Department
- Vancouver Police Department
- Legacy Salmon Creek Medical Center
- Southwest Washington Medical Center
- Washington State Department of Ecology
- Clark County Department of Emergency Services
- NRC Environmental Services
- Cowlitz Clean Sweep

BPA must respond to other explosions, fires, spills or releases of hazardous substance that may occur elsewhere on the Ross Complex. However, they will not use the contingency plan in this permit unless the emergency threatens to affect the dangerous waste management operations at the facility. BPA has separate plans for emergency responses in other parts of the Complex.

### Training

The permit requires BPA to conduct comprehensive training for employees involved with dangerous waste management. Training includes the following general topics:

- Health and safety
- Facility operations
- Permit and other regulatory requirements
- Emergency procedures
- Job-specific training

Two examples of job-specific training include (1) inspection requirements and procedures, and (2) dangerous waste container management. Comparable job-specific training applies to persons with other dangerous waste management duties.

The training program includes general training and job-specific training for new employees and employees doing new jobs. BPA must ensure an experienced, trained person supervises new employees until completion of the initial training. This initial training must be completed within the first six months of employment (or transfer to new duties). Refresher training occurs annually and includes a combination of formal courses and on-the-job training (OJT). OJT can include meetings, hands-on demonstrations, working under the guidance of a trained mentor, and review of written material such as operating procedures.

The purpose of OJT is to ensure employees use proper dangerous waste management procedures and to provide location-specific, task-specific, hands-on training to supplement classroom training. The HazMat Building Manager is responsible for ensuring that OJT is conducted as required and for making the final determination that employees working at the facility have successfully completed all required training.

### Corrective Action and Closure

**Corrective Action** - Ecology requires environmental cleanup at dangerous waste management facilities that have unacceptable levels of contamination in environmental media, such as soil, ground water, and surface water. This is called “corrective action.” Ecology is authorized to require corrective action by the state’s dangerous waste laws and regulations. Therefore, requirements for corrective action are part of this dangerous waste permit.

Corrective action follows similar administrative procedures and has the same objectives as other Ecology and EPA environmental cleanup programs. Ecology generally uses procedures and standards found in the state cleanup law, the Model



Toxics Control Act (MTCA), to conduct environmental cleanups. EPA conducts environmental cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly called “Superfund,” and under federal RCRA “corrective action” authority.

BPA has already done a significant amount of environmental cleanup under Superfund. They have completed contaminant removal and construction needed to address and monitor environmental contamination as determined by Record of Decisions (RODs) under Superfund. BPA’s current cleanup obligations involves maintenance and monitoring of previously installed systems. Additional remediation will be required under corrective action if new information indicates a need.

Corrective action requirements in this permit references the ongoing “Superfund” cleanup effort. This is the usual approach to avoid duplication of effort by different state and federal programs having the same objectives. This is discussed in more detail in a later subsection of this fact sheet. The following subsections also describe in more detail the past cleanup actions at BPA.

### **Background Information and Cleanup Activities Conducted Under Superfund**

BPA has operated their 250-acre Ross Complex facility in the northern part of Vancouver, Washington since 1939. BPA is part of the Department of Energy control center for the generation and transmission of electricity throughout the Pacific Northwest. They had conducted activities that resulted in soil and ground water contamination. This includes past practices of disposing hazardous materials onsite. In 1987 and 1988, BPA discovered that ground water was contaminated under part of their property.

In 1989, EPA listed BPA as a Superfund Site because of volatile organic constituents in ground water near the City of Vancouver drinking water supply.

In 1990, EPA divided the property into two separate cleanup areas to more effectively evaluate problems and potential remedies at the facility. These were designated Area A and Area B.

In 1991, BPA completed its remedial investigation (RI) and feasibility study (FS). The RI is a report on studies to determine the extent of contamination on the BPA property. The FS identified and evaluated actions that could be taken to address and control the contamination. In addition, BPA was required by the Department of Ecology under authority of MTCA to remove contaminated soils at seven localized areas of soil contamination around their property.

In 1993, EPA issued two Records of Decisions (RODs) under the authority of CERCLA. The RODs describe EPA’s decisions on how to address the contamination. The remedy included a combination of excavation of soil, treatment of soil, capping of contaminated soils, institutional controls, and monitoring the natural attenuation of contaminants in the ground water. EPA also conducted a Remedial Facility Assessment (RFA) in 1993 using its RCRA corrective action authority. The RFA recommended no action in addition to those required by Superfund except for one area. That area consisted of a leaking drum discovered during a 1987 TSCA inspection.

In 1995, EPA conducted an inspection of the facility and determined that the remedial actions were successful.

In 1996, EPA formally deleted the BPA facility as a Superfund site (see 61 FR 37435 for that formal announcement). BPA closed four dangerous waste management operations. All qualified for clean closure under RCRA. Clean closure of an area means that no further action is required to remove contamination from that location.

In 1997, BPA decommissioned twenty of its ground water monitoring wells. Thirteen ground water monitoring wells will remain and will be maintained indefinitely at the facility.



## Bonneville Power Association, Ross Complex

In 1999, EPA issued its first five-year review under CERCLA. CERCLA requires five-year reviews when hazardous substances remain on site above levels which allow unrestricted site use and unlimited exposure to environmental media. Five-year reviews evaluate whether implementation and performance of the clean-up work is functioning as designed and is protective of human health and the environment. These reviews are repeated every five years for as long as site uses remain restricted. Five-year reviews can be performed by EPA or the lead agency for a site (in this case BPA), but EPA is responsible for determining whether the clean-up work remains protective.

The 1999 five-year review determined ground water monitoring was no longer necessary because only low levels of contaminants remained in the upper ground water aquifer and there were no onsite users of the ground water. Also, monitoring results established that there was no exchange of contamination between the upper and lower aquifers. The lower aquifer is the one used by the city of Vancouver for their drinking water supply.

This review recommended a long-term strategy to strengthen and formalize institutional controls to ensure continued environmental protection from waste left in place at the facility. Recommendations included:

- Clearly delineating and mapping all waste units with residual contamination.
- Requiring dig permits by facility management for any excavation on the complex.
- Placing permanent placards at all areas under requirements for institutional controls.
- Notifying EPA prior to any sale or lease of property that is subject to institutional controls.
- Quarterly inspections and yearly reporting to EPA on all sites subject to institutional controls.
- Immediate reporting of any changes in land use to EPA.

In 2001, EPA developed a document called the “Explanation of Significant Difference” (ESD). This document clarifies and modifies EPA’s previous decisions explained in the RODs. In particular, the ESD provides detailed requirements for institutional controls at locations on the facility where contamination remains as recommended in the 1999 five-year review. The institutional controls ensure the long-term implementation, maintenance, and monitoring of these locations.

The ESD is incorporated into this dangerous waste permit. That means this permit provides Ecology the authority to require adherence to conditions in the ESD in partial fulfillment of BPA corrective action obligations.

In 2004, BPA submitted their second five-year review. It focused on the adequacy of institutional controls at the Fog Chamber Dump Trench Areas 1 and 2, Cold Creek Fill Area, Ross Substation/ Capacitor Yard, and the Wood Pole Storage Area East. It determined that remedies were functioning as designed and that institutional controls were effective. It recommended continuing the institutional controls and quarterly inspections established by the ESD document in 2001. This includes quarterly inspection of sites with caps, fences and warning signs, and other institutional controls. It concluded that the remedial actions being taken are protective of public health and the environment.

In 2009, the third five-year review recommended continued implementation of the institutional controls as outlined in the ESD and quarterly inspections of sites with caps, fences, and institutional controls. It concluded that no physical changes had occurred at the site that affected protectiveness of the remedies and that no additional action was needed.

In 2014, BPA will complete its fourth five-year review. Again, Ecology and EPA will review the report to assess the effectiveness and adequacy of ongoing actions.



This draft dangerous waste management permit has several conditions for ongoing corrective action by BPA. These include:

- Incorporating ongoing cleanup requirements in the existing 2001 Explanation of Significant Difference under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to meet dangerous waste requirements for corrective action.
- Stating that Ecology's Hazardous Waste and Toxics Reduction (HWTR) staff will review the 2014 and subsequent "five -year reviews" to ensure the remedial actions comply with the dangerous waste regulations for corrective action.
- Requiring that the facility notifies HWTR staff of any newly identified contamination or new releases.
- Stating that a permit modification will be used to require additional corrective action if Ecology determines that it is necessary to fulfill corrective action requirements in the dangerous waste regulations.

**Closure** - BPA must "close" the current dangerous waste facility when they stop using it to manage wastes. Closure involves removing all dangerous waste from the facility and decontaminating or removing all equipment, structures, and contaminated environmental media (for example, soil) that contacted dangerous wastes. If this cannot be accomplished, the contaminated location(s) will be subject to corrective action requirements.

The permit includes detailed step-by-step procedures that BPA must follow for closure. First, the facility must remove all dangerous waste from container management areas. BPA will ship these dangerous wastes to another permitted facility.

Then BPA will decontaminate the portions of the HazMat Building that are covered under the permit. They will use high pressure washing to decontaminate concrete and metal surfaces.

Then they will sample and analyze the concrete to determine if residual contamination remains. If the concrete surfaces still contain residual contamination above clean-closure levels specified in the closure regulations (i.e., WAC 173-303-610(2)) and the permit, then BPA must perform focused decontamination procedures using best demonstrated available technology specified in 40 CFR 268.45, Table 1. Before additional decontamination is carried out, the horizontal and vertical extent of the residual contamination will be determined through chip or core sampling of the concrete.

After decontaminating the building, BPA will sample soils beneath the building to determine whether any contamination from facility operations have entered the soil. Soil sampling will be conducted at:

- Locations where constituents were detected in concrete chip samples above the cleanup level.
- Random locations within each secondary containment "unit" or room within the permitted unit at a minimum of one sample for every 3,000 square feet.
- The mid-point or lowest point of each containment sump.
- The mid-point or lowest point of each trench.
- Any location where documented floor damage such as significant cracks exists or had been repaired.
- Any area where a significant spill resulted in deterioration of the floor coating.

The permit includes general sampling and analytical procedures, minimum number of sampling locations, criteria for selecting additional sampling locations, and minimum laboratory analyses.

BPA and Ecology will compare results to the established MTCA cleanup standards for unrestricted site use. If all results are below these cleanup standards, the facility qualifies for clean closure. If results are above the clean-up standards, BPA will need to remove or decontaminate the soils to achieve acceptable soil contamination levels.



BPA must submit an updated Sampling and Analysis Plan at least 60 days before closure begins. Certain information needed to develop the final detailed sampling and analysis plan, including current analytical procedures and up-to-date facility operating history, will not be available until then.

An independent qualified professional engineer will observe and document closure activities. The engineer will write a report of observations and certify whether BPA followed procedures in the permit while conducting closure.

Since BPA proposes to fully close the dangerous waste storage unit, the permit does not include a plan for post-closure care.

### **Financial assurance**

Because BPA is a federal agency, it does not need to provide assurance that it has finances available to conduct a complete closure of the facility. However, BPA has estimated its closure cost so that amount can be placed in their budget for closing the facility.

BPA is also exempt from having liability insurance specified in Chapter 173-303 WAC. Therefore, the permit does not contain financial assurance mechanisms for either closure or liability coverage.

### **Recordkeeping**

The facility must maintain detailed operating records. These records document compliance with conditions of the permit and the dangerous waste regulations. The facility must also maintain records of spills, releases, incidents of noncompliance, and emergencies. These records must be kept for periods ranging from three years to when facility closure is completed, depending on the type. The permit lists specific recordkeeping requirements.

### **Reporting**

BPA must report certain information to Ecology, for example:

- When incidents cause the facility to implement its contingency plan.

- When waste shipments received do not agree with the accompanying manifest or shipping paper, if the discrepancy is not resolved within 15 days.
- Annual reports on the facility's operation, including waste minimization efforts.

This list provides examples of the types of reports required. It does not include all reports BPA must submit to Ecology.

## **E. Changes to RCRA/RCRA Rules under the Hazardous and Solid waste Amendments**

In general, new or amended requirements in the Hazardous and Solid Waste Amendments of 1984 and related regulations will automatically apply to BPA's dangerous waste management activities. The exception is new requirements that are less stringent than those in effect when Ecology issues the final permit.

## **F. Conclusion**

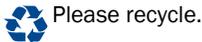
In its permit application, BPA has demonstrated it is capable of safely operating its dangerous waste management facility under the conditions required for a final permit. Therefore, Ecology has made a tentative decision to re-issue a final status permit to the facility.







**PO Box 47600  
Olympia, WA 98504-7600**



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## **Ecology Seeks Public Comment on Draft Dangerous Waste Permit Re-issuance for**

Bonneville Power Administration  
Ross Complex  
Vancouver, Washington

Public Comment Period:

**September 6, 2011  
through October 21, 2011**

Facility Site ID #: WA1 891 406 349

### **Special Accommodations**

If you need this document in a format for the visually impaired call the Hazardous Waste and Toxics Reduction Program at 360-407-6700.

Persons with hearing loss, call 711 for Washington Relay Service.  
Persons with a speech disability, call 877-833-6341.

If you request a public hearing and have a special accommodation need, please contact Martin Werner at (360) 407-6710 by October 5, 2011.

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