



State of Utah

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Department of
Environmental Quality

Alan Matheson
Executive Director

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL
Scott T. Anderson
Director

December 28, 2018

Darrell Cunningham, Managing Director
Huntington Power Plant
P O Box 569
Castle Date, Utah 84513

RE: Class IIIb Landfill Permit

Dear Mr. Cunningham:

The 30-day public comment period for the Huntington Class IIIb draft permit began on October 25, 2018. The announcement of the public comment period appeared in the Emery County Progress. No comments were received. Accordingly, no changes were made to the draft permit.

Enclosed is Permit #002R2, which expires on December 12, 2028.

Representatives of the Division of Waste Management and Radiation Control and/or representatives of the Southeastern Utah District Health Department will conduct periodic inspections. The inspections are to assess compliance with the conditions of the Permit and the Solid Waste Permitting and Management Rules.

If you have any questions, please call Rob Powers at (801) 536-0255.

Sincerely,

Scott T. Anderson, Director
Division of Waste Management and Radiation Control

Enclosure: PacifiCorp Huntington Power Plant Class IIIb Landfill Permit (DSHW-2017-004808)

STA/RDP/kl

c: Brady C. Bradford, MSPH, REHS, Health Officer, Southeast Utah Health Department
Orion Rogers, Environmental Health Director, Southeast Utah Health Department
Scott Hacking, P.E., DEQ District Engineer
Darce Guymon, Huntington Power Plant

DSHW-2018-011901

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DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL
SOLID WASTE LANDFILL PERMIT

PacifiCorp Huntington Power Plant Class IIIb Landfill

Pursuant to *Utah Solid and Hazardous Waste Act*, Title 19, Chapter 6, Part 1, Utah Code Annotated (Utah Code Ann.) (the Act) and the *Utah Solid Waste Permitting and Management Rules*, Utah Administrative Code R315-301 through 320 adopted thereunder, a Permit is issued to

PACIFICORP as owner and operator

to own, construct, and operate the Huntington class IIIb landfill located in North between the West quarter corner and the Northwest corner of Section 7, Township 17 South, Range 8 East, Salt Lake Base and Meridian, Emery County, Utah as shown in the Permit Renewal Application that was determined complete on October 5, 2018.

The Permittee is subject to the requirements of R315-301 through 320 of the Utah Administrative Code and the requirements set forth herein.

All references to R315-301 through 320 of the Utah Administrative Code are to regulations that are in effect on the date that this permit becomes effective.

This Permit shall become effective December 12, 2018.

This Permit shall expire at midnight December 11, 2028.

Closure Cost Revision Date: December 12, 2023.

Signed this 28th day of December, 2018.



Scott T. Anderson, Director
Utah Division of Waste Management and Radiation Control

FACILITY OWNER/OPERATOR INFORMATION

LANDFILL NAME: PacifiCorp Huntington Power Plant Class IIIb Landfill

OWNER NAME: PacifiCorp

OWNER ADDRESS: Highway 31 W. of Huntington City, Huntington, Utah
84528

OWNER PHONE NO.: 435-687-4305

OPERATOR NAME: PacifiCorp

OPERATOR ADDRESS: Highway 31 W. of Huntington City, Huntington, Utah
84528

OPERATOR PHONE NO.: 435-687-4305

TYPE OF PERMIT: Class IIIb Landfill

PERMIT NUMBER: 0002R2

LOCATION: North between the West quarter corner and the
Northwest corner of Section 7, Township
17 South, Range 8 East, Salt Lake Base and Meridian.

PERMIT HISTORY: Permit renewal signed December 28, 2018

The term, "Permit," as used in this document is defined in R315-301-2(55) of the Utah Administrative Code. Director as used throughout this permit refers to the Director of the Division of Solid and Hazardous Waste.

The renewal application for the PacifiCorp Huntington Power Plant Class IIIb Landfill as deemed complete on the date shown on the signature page of this Permit. All representations made in the attachments of this Permit and are enforceable under R315-301-5(2) of the Utah Administrative Code. Where differences in wording exist between this Permit and the attachments, the wording of this Permit supersedes that of the attachments.

This Permit consists of the signature page, Facility Owner/Operator Information section, sections I through V, and all attachments to this Permit.

Compliance with this Permit does not constitute a defense to actions brought under any other local, state, or federal laws. This Permit does not exempt the Permittee from obtaining any other local, state or federal permits or approvals required for the facility operation.

The issuance of this Permit does not convey any property rights, other than the rights inherent in this Permit, in either real or personal property, or any exclusive privileges other than those inherent in this Permit. Nor does this Permit authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations, including zoning ordinances.

The provisions of this Permit are severable. If any provision of this Permit is held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this Permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

By this Permit, the Permittee is subject to the following conditions.

PERMIT REQUIREMENTS

I. GENERAL COMPLIANCE RESPONSIBILITIES

I.A. General Operation

I.A.1. The Permittee shall operate the landfill in accordance with all applicable requirements of R315-304 of the Utah Administrative Code, that are in effect as of the date of this Permit unless otherwise noted in this Permit. Any permit noncompliance or noncompliance with any applicable portions of Utah Code Ann. § 19-6-101 through 125 and applicable portions of R315-301 through 320 of the Utah Administrative Code constitutes a violation of the Permit or applicable statute or rule and is grounds for appropriate enforcement action, permit revocation or modification.

I.B. Acceptable Waste

I.B.1. Scrap metal, wood, paper, demolition waste, plastic products, food scraps, and miscellaneous plant industrial waste.

I.B.2. This Permit is for disposal of nonhazardous industrial waste, as defined in R315-301-2(35) of the Utah Administrative Code, generated by PacifiCorp Huntington Power Plant and as described in the Permit Application.

I.C. Prohibited Waste

I.C.1. Hazardous waste as defined by R315-260-10 and R315-261-3 of the Utah Administrative Code;

I.C.2. PCB's as defined by R315-301-2(53) of the Utah Administrative Code, except PCB's specified by R315-315-7(2)(a) and (c) of the Utah Administrative Code;

I.C.3. Household waste;

I.C.4. Municipal waste;

I.C.5. Special waste;

I.C.6. Dead Animals;

I.C.7. Commercial waste; and

I.C.8. Containers larger than household size (five gallons) holding any liquid, non-containerized material containing free liquids or any waste containing free liquids in containers larger than five gallons.

I.C.9. Any prohibited waste received and accepted for disposal at the facility shall constitute a violation of this Permit, of Utah Code Ann. § 19-6-101 through 125 and of R315-301 through 320 of the Utah Administrative Code.

I.D. Inspections and Inspection Access

I.D.1. The Permittee shall allow the Director or an authorized representative, or representatives from the Central Utah Public Health Department, to enter at reasonable times and:

I.D.1.a Inspect the landfill or other premises, practices or operations regulated or required under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;

I.D.1.a.(i) Have access to and copy any records required to be kept under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;

I.D.1.a.(ii) Inspect any loads of waste, treatment facilities or processes, pollution management facilities or processes, or control facilities or processes required under this Permit or regulated under R315-301 through 320 of the Utah Administrative Code; and

I.D.1.a.(iii) Create a record of any inspection by photographic, video, electronic, or any other reasonable means.

I.E. Noncompliance

I.E.1. If monitoring, inspection, or testing indicates that any permit condition or any applicable rule under R315-301 through 320 of the Utah Administrative Code may be or is being violated, the Permittee shall promptly make corrections to the operation or other activities to bring the facility into compliance with all permit conditions or rules.

I.E.2. In the event of noncompliance with any permit condition or violation of an applicable rule, the Permittee shall promptly take any action reasonably necessary to correct the noncompliance or violation and mitigate any risk to the human health or the environment. Actions may include eliminating the activity causing the noncompliance or violation and containment of any waste or contamination using barriers or access restrictions, placing of warning signs, or permanently closing areas of the facility.

I.E.3. The Permittee shall:

I.E.3.a Document the noncompliance or violation in the daily operating record, on the day the event occurred or the day it was discovered;

I.E.3.b Notify the Director of the Utah Division of Waste Management and Radiation Control by telephone within 24 hours, or the next business day following documentation of the event; and

I.E.3.c Give written notice of the noncompliance or violation and measures taken to protect human health and the environment within seven days after notification to the Director

I.E.4. Within thirty days after the documentation of the event, the Permittee shall submit to the Director a written report describing the nature and extent of the noncompliance or violation and the remedial measures taken or to be taken to protect human health and the environment and to eliminate the noncompliance or violation. Upon receipt and review of the assessment report, the Director may order the Permittee to perform appropriate remedial measures including development of a site remediation plan for approval by the Director.

I.E.5. In an enforcement action, the Permittee may not claim as a defense that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with R315-301 through 320 of the Utah Administrative Code and this Permit.

I.F. Revocation

I.F.1. This Permit is subject to revocation if the Permittee fails to comply with any condition of the Permit. The Director will notify the Permittee in writing prior to any proposed revocation action and such action shall be subject to all applicable hearing procedures established under R305-7 of the Utah Administrative Code and the Utah Administrative Procedures Act.

I.G. Attachment Incorporation

I.G.1. Attachments to the Permit are incorporated by reference into this Permit and are enforceable conditions of this Permit, as are documents incorporated by reference into the attachments. Language in this Permit supersedes any conflicting language in the attachments or documents incorporated into the attachments.

II. DESIGN AND CONSTRUCTION

II.A. Design and Construction

II.A.1. The landfill shall be constructed according to the design outlined in Attachment 2 including facility fences, gates, and berms prior to acceptance of waste.

II.A.2. All engineering drawings submitted to the Director shall be certified by a professional engineer with a current registration in Utah.

II.B. Run-On Control

II.B.1. The Permittee shall construct drainage channels and diversions as specified in Attachment 2 and shall maintain them at all times to effectively prevent runoff from the surrounding area from entering the landfill.

III. LANDFILL OPERATION

III.A. Operations Plan

III.A.1. The Permittee shall keep the Operations Plan included in Attachment 1 on site at the landfill or at the location designated in section III-H of this Permit. The Permittee shall operate the landfill in accordance with the operations plan. If necessary, the Permittee may modify the Operations Plan, provided that the modification meets all of the requirements of R315-301 through 320 of the Utah Administrative Code and is approved by the Director as a permit modification under R315-311-2(1) of the Utah Administrative Code. The Permittee shall note any modification to the Operations Plan in the daily operating record.

III.B. Security

III.B.1. The Permittee shall operate the Landfill so that unauthorized entry to the facility is restricted. The Permittee shall:

III.B.1.a Lock all facility gates and other access routes during the time the landfill is closed.

III.B.1.b Have at least one on site person employed by the Permittee at the landfill during all hours that the landfill is open.

III.B.1.c Construct all fencing and any other access controls as outlined in section 6 of Attachment 2 to prevent access by persons or livestock by other routes.

III.C. Training

III.C.1. The Permittee shall provide training for on-site personnel in landfill operation, including waste load inspection, hazardous waste identification, and personal safety and protection.

III.D. Burning of Waste

III.D.1. Except as provided in this paragraph, intentional burning of solid waste is prohibited and is a violation of R315-303-4(2)(b) of the Utah Administrative Code. The Permittee is allowed to burn material by complying with the requirements of R307-202-5 of the Utah Administrative Code. The Permittee shall perform such burning in a segregated area within the landfill site. The Permittee shall extinguish all accidental fires as soon as reasonably possible. The Permittee's non-compliance with R307-202-5 of the Utah Administrative Code, as determined by the Director of the Division of Waste Management and Radiation Control, also constitutes non-compliance with this Permit.

III.D.2. The permittee shall extinguish all accidental fires as soon as reasonably possible.

III.E. Cover

- III.E.1. The Permittee shall cover the waste as necessary to prevent fires and to control vectors, blowing litter, odor, scavenging, and fugitive dust. The Permittee shall cover wastes that are capable of attracting or providing food for vectors, materials that may become windblown litter or fine materials that may become fugitive dust with a minimum of six inches of earth at the end of the working day in which the wastes are received. The Permittee may use an alternative cover material when the material and operation meets the requirements of R315-303-4(4)(b) through (e) of the Utah Administrative Code.
- III.E.2. The Permittee shall use a minimum of six inches of earthen cover or ash no less than once each month for all wastes received at the landfill.
- III.E.3. The Permittee shall record in the daily operating record and the operator shall certify, at the end of each day of operation when soil or an alternative cover is placed, the amount and type of cover placed and the area receiving cover.

III.F. Waste Inspections

- III.F.1. The Permittee shall visually inspect incoming waste loads to verify that no wastes other than those allowed by this permit are disposed in the landfill. The Permittee shall conduct inspections at a minimum frequency of 1% of incoming loads no less than once per month.
- III.F.2. The Permittee shall inspect all loads that the Permittee suspect may contain a waste not allowed for disposal at the landfill.
- III.F.3. The Permittee shall conduct complete random inspections as follows:
 - III.F.3.a The Permittee shall conduct the random waste inspection at the working face or an area designated by the Permittee.
 - III.F.3.b The Permittee shall direct that loads subjected to complete inspection be unloaded at the designated area;
 - III.F.3.c Loads shall be spread by equipment or by hand tools;
 - III.F.3.d Personnel trained in hazardous waste recognition and recognition of other unacceptable waste shall conduct a visual inspection of the waste; and
 - III.F.3.e The personnel conducting the inspection shall record the results of the inspection on a waste inspection form as found in Attachment 3. The Permittee shall place the form in the daily operating record at the end of the operating day.
 - III.F.3.f The Permittee or the waste transporter shall properly dispose of any waste found that is not acceptable at the facility at an approved disposal site for the waste type and handle the waste according to the rules covering the waste type.

III.G. Self-Inspections

III.G.1. The Permittee shall inspect the facility to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes or contaminated materials to the environment or create a threat to human health or the environment. The Permittee shall complete these general inspections no less than quarterly and shall cover the following areas: Waste placement, compaction, cover; fences and access controls; roads; run-on/run-off controls; final and intermediate cover; litter controls; and records. The Permittee shall place a record of the inspections in the daily operating record on the day of the inspection. The Permittee shall correct the problems identified in the inspections in a timely manner and document the corrective actions in the daily operating record.

III.H. Recordkeeping

III.H.1. The Permittee shall maintain and keep on file at the Huntington Power Plant offices a daily operating record and other general records of landfill operation as required by R315-302-2(3) of the Utah Administrative Code. The landfill operator, or other designated personnel, shall date and sign the daily operating record at the end of each operating day. Each record to be kept shall contain the signature of the appropriate operator or personnel and the date signed. The Daily operating record shall consist of the following two types of documents:

III.H.1.a Records related to the daily landfill operation or periodic events including:

III.H.1.a.(i) The number of loads of waste and the weights or estimates of weights or volume of waste received each day of operation and recorded at the end of each operating day;

III.H.1.a.(ii) Major deviations from the approved plan of operation recorded at the end of the operating day the deviation occurred;

III.H.1.a.(iii) Results of monitoring required by this Permit recorded in the daily operating record on the day of the event or the day the information is received;

III.H.1.a.(iv) Records of all inspections conducted by the Permittee, results of the inspections, and corrective actions taken shall be recorded in the record on the day of the event.

III.H.1.b Records of a general nature including:

III.H.1.b.(i) A copy of this Permit, including all attachments;

III.H.1.b.(ii) Results of inspections conducted by representatives of the Director of the Division of Waste Management and Radiation Control, and of representatives of the local Health Department, when forwarded to the Permittee;

III.H.1.b.(iii) Closure and Post-closure care plans; and

III.H.1.b.(iv) Records of employee training.

III.I. Reporting

III.I.1. The Permittee shall prepare and submit to the Director an Annual Report as required by R315-302-2(4) of the Utah Administrative Code. The Annual Report shall include the period covered by the report, the annual quantity of waste received, an annual update of the financial assurance mechanism and all training programs completed.

III.J. Roads

III.J.1. The Permittee shall improve and maintain all access roads within the landfill boundary that are used for transporting waste to the landfill for disposal shall be improved and maintained as necessary to assure safe and reliable all-weather access to the disposal area.

III.K. Litter Control

III.K.1. Litter resulting from operations of the landfill shall be minimized. In addition to the litter control plans found in Attachment 1, the Permittee shall implement the following procedures when high wind conditions are present:

III.K.1.a Reduce the size of the tipping face;

III.K.1.b Reduce the number of vehicles allowed to discharge at the tipping face at one time;

III.K.1.c Orient vehicles to reduce wind effects on unloading and waste compaction;

III.K.1.d Reconfigure tipping face to reduce wind effect;

III.K.1.e Use portable and permanent wind fencing as needed; and

III.K.1.f Should high winds present a situation that the windblown litter cannot be controlled; the Permittee shall cease operations of the landfill until the winds diminish.

III.L. Ground Water Monitoring

III.L.1. The ground water monitoring requirement for the PacifiCorp Huntington Power Plant Class IIIb landfill has been waived in accordance with R315-308-1(3) of the Utah Administrative Code. Any contamination of ground water resulting from operation of the landfill shall result in the revocation of this waiver.

IV. CLOSURE REQUIREMENTS

IV.A. Closure

IV.A.1. The Permittee shall install final cover of the landfill as shown in Attachment 2. The final cover shall meet, at a minimum, the standard design for closure as specified in the R315-303-3(4) of the Utah Administrative Code plus sufficient cover soil or equivalent material to protect the low permeability layer from the effects of frost, desiccation, and root penetration. The Permittee shall submit to the Director a quality assurance plan for construction of the final landfill cover, and approval of the plan shall be received from the Director prior to construction of any part of the final cover at the landfill. A qualified person not affiliated with the Permittee or the construction contractor shall perform permeability testing on the recompacted clay placed as part of the final cover.

IV.B. Title Recording

IV.B.1. The Permittee shall meet the requirements of R315-302-2(6) of the Utah Administrative Code by recording a notice with the Emery County Recorder as part of the record of title that the property has been used as a landfill. The notice shall include waste disposal locations and types of waste disposed. The Permittee shall provide the Director the notice as recorded.

IV.C. Post-Closure Care

IV.C.1. The Permittee shall perform post-closure care at the closed landfill in accordance with the Post-Closure Care Plan contained in the Permit Application. Post-closure care shall continue until all waste disposal sites at the landfill have stabilized and the finding of R315-302-3(7)(c) of the Utah Administrative Code is made.

IV.D. Financial Assurance

IV.D.1. The Permittee shall keep in effect and active the currently approved financial assurance mechanism or another approved mechanism that meets the requirements of R315-309 of the Utah Administrative Code and is approved by the Director to cover the costs of closure and post-closure care at the landfill. The Permittee shall adequately fund and maintain the financial assurance mechanism(s) to provide for the cost of closure at any stage or phase or anytime during the life of the landfill.

IV.E. Financial Assurance Annual Update

IV.E.1. The Permittee shall submit an annual revision of closure and post-closure costs for inflation and financial assurance funding as required by R315-309-2(2) of the Utah Administrative Code, to the Director as part of the annual report. The Permittee shall submit the information as required in R315-309-9 of the Utah Administrative Code and shall meet the qualifications for the "Corporate Financial Test" or "Corporate Guarantee" each year.

IV.F. Closure Cost and Post-Closure Cost Revision

IV.F.1. The Permittee shall submit a complete revision of the closure and post-closure cost estimates by the Closure Cost Revision Date listed on the signature page of this Permit and any time the facility is expanded, any time a new cell is constructed, or any time a cell is expanded.

V. ADMINISTRATIVE REQUIREMENTS

V.A. Permit Modification

V.A.1. Modifications to this Permit may be made upon application by the Permittee or by the Director following the procedures specified in R315-310-11-2 of the Utah Administrative Code. The Permittee shall be given written notice of any permit modification initiated by the Director.

V.A.2. Permit Transfer

V.A.2.a This Permit may be transferred to a new permittee or new permittees by complying with the permit transfer provisions specified in R315-310-11 of the Utah Administrative Code.

V.B. Expansion

V.B.1. This Permit is for the operation of a Class IIIb Landfill according to the design and Operation Plan described and explained in the Permit Application. Any expansion of the current footprint designated in the description contained in the Permit Application, but within the property boundaries designated in the Permit Application, shall require submittal of plans and specifications to the Director. The plans and specifications shall be approved by the Director prior to construction.

V.B.2. Any expansion of the landfill facility beyond the property boundaries designated in the description contained in the Permit Application shall require submittal of a new Permit Application in accordance with the requirements of R315-310 of the Utah Administrative Code.

V.B.3. Any addition to the list of acceptable waste in Section I-B shall require submittal of all necessary information to the Director and the approval of the Director.

V.C. Expiration

V.C.1. If the Permittee desires to continue operating this landfill after the expiration date of this Permit, the Permittee shall submit an application for permit renewal at least six months prior to the expiration date, as shown on the signature (cover) page of this Permit. If the Permittee timely submits a permit renewal application and the permit renewal is not complete by the expiration date, this Permit shall continue in force until renewal is completed or denied

Attachment 1
Operations Plan

22.2 PLAN OF OPERATION

2.2.1 On-Site Waste Handling Procedures (R315-302-2(2)(b)) and (R315-310-3(1)(f))

Included is an excerpt from the Huntington Plant *Landfill Operations Plan*, Waste Description and Quantities section:

Industrial wastes shall be disposed of within the locations shown on Plan Sheets 1 through 4. These materials shall be processed to the smallest practical volume during placement in the landfill. After reducing the volume of the wastes, the materials shall be covered with at least 6 inches of compacted fly or bottom ash and then a thin veneer of pyrites or bottom ash by the end of each day that trash is deposited in the landfill. The wastes shall be shaped so that water does not pond on top of the wastes.

Hazardous or PCB containing wastes are excluded from the industrial landfill. All sludges will be dewatered and must pass a paint filter test before being disposed of in the

landfill. At least one percent (1% of waste loads will be reviewed and characterized in detail and recorded on a log sheet. Inspection procedures will consist of the waste being spread out on the ground, and the perimeter of the waste walked to check for hazardous or PCB containing materials. Inspection details will be recorded on a log sheet. The log sheet instructs that hazardous wastes are not permitted in the landfill, and contains a list showing examples of prohibited materials. Any prohibited materials will be removed from the waste load, containerized, and reported to the Landfill Manager. A copy of the Weight and Volume Log Sheet used by landfill personnel is included in Appendix C.

Please refer to Appendix C for a copy of the Weight and Volumes form used by landfill personnel. A complete copy of the Huntington Plant *Landfill Operations Plan* is located in Appendix D.

2.2.2 Landfill Inspections and Monitoring (R315-302-2(2)(c), R315-302-2(5)(a), R315-310-3(1)(g))

Inspections will be conducted monthly to identify problems in time to correct them before they harm human health or the environment. Please see Appendix C for the Inspection and Monitoring sheet.

2.2.3 Fire/Explosion Contingency Plans (R315-302-2(2)(d))

The Huntington *Plant Emergency Procedures (HTG-SAF-002)* shall be abided by in the event of a fire, explosion, and other releases such as explosive gases or run-off collection failure. A complete copy of the *Huntington Plant Emergency Procedures* is located in Appendix E.

2.2.4 Fugitive Dust Control (R315-302-2(2)(e))

Detailed descriptions of the methods to be implemented for controlling dust are included in the Huntington Plant Title V Air Permit and shall be referred to as necessary.

2.2.5 Ground Water Corrective Action Program (R315-302-2(2)(e))

An investigation shall be initiated if contamination is detected in the groundwater. The investigation shall involve working in cooperation with state agencies to determine the extent of the problem and the proper remedial actions.

2.2.6 Contingency Plans for Other Releases (R315-302-2(2)(f))

The *Huntington Plant Emergency Procedures* shall be abided by in the event of a fire, explosion, and other releases such as explosive gases or run-off collection failure. A complete copy of the *Huntington Plant Emergency Procedures* is located in Appendix E.

2.2.7 Litter Control and Collection Plan (R315-302-2(2)(h))

At the end of the operating day when material is disposed of in the landfill, after compacting and pushing the waste material against the working face, the material will be completely covered with at least 6 inches of earth, bottom ash, or other suitable cover material. Litter control along the access roads and at the facility shall be accomplished by clean-up of the areas as often as necessary to prevent unsightly conditions or windblown materials leaving the site.

2.2.8 Maintenance of Installed Equipment

As a Class IIIb landfill, the Huntington Industrial Solid Waste Landfill does not operate or maintain any leachate systems, gas collection systems or ground water monitoring systems.

2.2.9 Exclusion of Hazardous/PCB Waste (R315-302-2(2)(j))

Hazardous or PCB containing wastes are excluded from the landfill. At least one percent (1% of waste loads will be reviewed and characterized in detail by the truck driver or plant personnel and recorded on a log sheet, as described in Section 2.2.2. The driver is instructed and the log sheet reminds him that hazardous wastes are not permitted in the landfill. A copy of the Log Sheet used by landfill personnel is included in Appendix C. Log sheets may be updated and/or changed at the discretion of PacifiCorp personnel.

2.2.10 Control of Disease Vectors (R315-302-2(2)(k))

After reducing the volume of the waste, the materials shall be covered with at least 6 inches of compacted fly or bottom ash and a thin veneer of pyrites or bottom ash by the end of each day that trash is deposited in the landfill.

2.2.11 Alternative Waste Handling (R315-302-2(2)(l))

In the occurrence that the industrial landfill is inoperative, solid waste shall be sent to the ECDC landfill in East Carbon or to the Emery County Landfill.

2.2.12 General Safety Training for Site Operations (R315-302-2(2)(o))

Training may be needed when new personnel are hired or to increase the awareness of the existing employees. This training shall be performed as needed to assist the employees in executing and fulfilling their responsibilities. The *Power Supply Operating Rules Handbook* and the *Landfill Operations Plan* will be used for training personnel and providing safety guidelines. Training records will be kept identifying who was trained, the training subject, and date trained.

Training sessions are documented and kept on file by the Landfill Manager. Please see Appendix C for a copy of the Industrial Waste landfill Training Sign-In Sheet. A

complete copy of the *Huntington Plant Landfill Operations Plan* is located in Appendix D.

2.2.13 Recycling Programs (R315-303-4(6))

Huntington Power Plant recycles as much scrap metal as practicable with a minimal amount disposed of in the industrial landfill. In addition lead acid batteries, tires, anti-freeze, electronic components, and used oil are recycled. No other wastes are recycled at the plant.

2.2.14 Regulatory Requirements of Rule R315-304 (R315-310-5(2)(e))

Included is an excerpt from the Huntington Power Plant *Landfill Operations Plan*, Regulatory Requirements section:

Utah Administrative Code Regulation R315-304 applies to the Huntington Plant landfill operations. These regulations classify industrial landfills into two categories: Class IIIa and Class IIIb. The Huntington Plant industrial landfill meets the requirements for a Class IIIb classification. The landfill is not open to the public, it receives waste generated solely from on site and it does not receive hazardous waste. Industrial waste has been received at the landfill prior to 1998; thus the landfill is an existing Class IIIb landfill. Existing Class IIIb landfills have no siting restrictions.

The regulatory requirements for operation, closure and post-closure care for Class IIIb Landfills are summarized:

1. *Develop, keep on file, and abide by a plan of operation approved by the Utah Division of Waste Management and Radiation Control Director. The plan of operation shall include the following:*
 - A. *Intended Schedule of Construction*
 - B. *Description of on-site solid waste handling procedures*
 - C. *Schedule for conducting inspections and monitoring the facility*
 - D. *Contingency plans in the event of a fire or explosion*
 - E. *Contingency plans for other releases such as failure of run-off containment system*
 - F. *Plan to control fugitive dust*
 - G. *Procedures for excluding the receipt of hazardous waste or waste containing PCBs*
 - H. *Closure and post-closure care plans*
 - I. *Cost estimates and financial assurance*
 - J. *General training and safety plan for site operators*
2. *Maintain and keep on-site or at a location approved by the DWMRC Director the following:*

- A. *Weights or volumes, number of vehicles entering and the types of wastes received each day*
 - B. *Deviations from the approved plan of operation*
 - C. *Training and notification procedures*
 - D. *Inspection log*
 - E. *Closure and post-closure care plans*
 - F. *Cost estimates and financial assurance documentation*
3. *Prepare an annual report and place the report in the facility's operating record. A copy of the report shall be submitted to the Executive Secretary by March 1st of each year. The annual report shall cover facility activities during the previous year and must include the following information:*
- A. *Name and address of facility*
 - B. *Calendar year covered by the report*
 - C. *Annual quantity in tons or cubic yards and estimated in-place density in pounds per cubic yard of solid waste handled*
 - D. *Annual update of the required financial assurance mechanism*
 - E. *Training programs or procedures completed*
4. *Inspect the landfill facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of wastes to the environment or to a threat to human health. These inspections must be conducted with sufficient frequency (no less than quarterly) to identify problems in time to correct them before they harm human health or the environment. The inspection log or summary shall include the following:*
- A. *Date and time of inspection*
 - B. *Printed name and handwritten signature of the inspector*
 - C. *Notation of observations made and the date and nature of any repairs or corrective action*
 - D. *Logs must be kept for a minimum of three years*
5. *Design the landfill to minimize the acceptance of liquids and control storm water run-on/run-off.*
6. *Provide for the following:*
- A. *Fencing at the property boundary or the use of other artificial or natural barriers to impede entry by the public and large animals. A lockable gate shall be required at the entry to the landfill.*

- B. *Erecting a sign at the facility entrance that identifies at least the name of the facility, unacceptable materials, and an emergency telephone number.*
 - C. *Adequate fire protection to control any fires that may occur at the facility.*
 - D. *Preventing the potential harborage in active areas of rat and other vectors*
 - E. *Minimize the size of the unloading area and working face as much as possible*
 - F. *Approach and exit roads of all-weather construction, with traffic separation and traffic control on-site and at the site entrance*
 - G. *Communication, such as telephone or radio, between employees working at the landfill and management offices to handle emergencies.*
7. *Prevent the disposal of unauthorized waste by ensuring that at least one person is on site during hours of operation and shall prevent unauthorized disposal during off-hours by controlling entry.*
8. *Employ measures to prevent emissions of fugitive dusts, when weather conditions or climate indicate that transport of dust off-site is liable to create a nuisance.*
9. *Cover timber, wood, and other combustible waste with a minimum of six inches of soil, or equivalent, to avoid a fire hazard.*
10. *Plats and a statement of fact concerning the location of any disposal site shall be recorded as part of the record of title with the county recorder not later than 60 days after certification of closure. Proof of the record of title filing shall be submitted to the Executive Secretary.*
11. *Close the facility in a manner that will:*
- A. *Minimize the need for maintenance*
 - B. *Minimize or eliminate threats to human health and the environment from escape of solid waste constituents, leachate, gases, or contaminated run-off to the groundwater, surface water, or the atmosphere*
 - C. *Prepare the facility for the post-closure period*
12. *Develop, keep on file and abide by a closure plan approved by the DWMRC Director.*
13. *The closure plan shall project time intervals at which sequential partial closure, if applicable, is to be implemented and identify closure cost estimates and projected fund withdrawal intervals for the associated closure costs from the approved financial assurance instrument.*
14. *Landfills shall be closed by:*
- A. *Leveling the waste*
 - B. *Covering the waste with a minimum of 2 feet of soil, including six inches of topsoil*

- C. *Contouring the cover to minimum 3 percent surface slopes and maximum 33 percent side slopes, except where integrity and erosion control can be demonstrated at steeper slopes*
15. *Notify the DWMRC Director of the intent to implement the closure plan in whole or part, 60 days prior to the project final receipt of waste at the unit or facility.*
 16. *Commence implementation of the closure plan, in part or whole, within 30 days after final elevation is attained in part or all of the facility closure plan. Closure activities shall be completed within 180 days from their starting time.*
 17. *Within 90 days following completion of closure, submit to the DWMRC Director the following:*
 - A. *Facility or unit closure plan sheets signed by a professional engineer registered in the state of Utah, and modified as necessary to represent as-built changes to final closure construction as approved in the closure plan*
 - B. *Certification by the owner or operator and a professional engineer registered in the state of Utah that the site or unit has been closed in accordance with the approved closure plan.*
 18. *Provide post-closure activities for facility maintenance and monitoring of gases, land, and water for 30 years or as long as the DWMRC Director determine is necessary for the facility to become stabilized and to protect human health and the environment.*
 19. *Develop, keep on file, and abide by a post-closure plan. The post-closure plan shall project time intervals at which post-closure activities are to be implemented and identify post-closure cost estimates and project fund withdrawal intervals from the selected financial assurance instrument.*
 20. *Commence post-closure activities after closure activities have been completed.*
 21. *Submit a certification to the DWMRC Director when post-closure activities are complete, signed by the owner or operator and a professional engineer registered in the state of Utah stating why post-closure activities are no longer necessary.*

The Huntington Plant will continue to comply with the rules and regulations stated in this section throughout the life of the landfill. A complete copy of the Huntington Power Plant *Landfill Operations Plan* is located in Appendix D.

2.2.15 Additional Site Information (R315-302-2(2)(p))

Additional site specific information concerning the landfill may be requested by the Utah Division of Waste Management and Radiation Control. If this situation occurs, PacifiCorp will supply the information to the Division of Waste Management and Radiation Control as soon as practicable.

3.0 PART III – TECHNICAL REPORT

3.1 MAPS

3.1.1 Topographic Map (R315-310-4(2)(a)(i))

Plan Sheet 1 (USGS Topographic Map also shows a topographic map of the landfill and surrounding area. Plan Sheet 4 (Final Permitted Landfill Contours shows the final contours of the closed landfill.

3.1.2 U.S.G.S. Topographic Map (R315-310-4(2)(a)(ii))

The most recent USGS 7 ½ minute series topographic map is included as Plan Sheet 1, showing the waste facility boundary, property boundary, existing utilities and structures within ¼-mile of the site, and the direction of prevailing winds.

3.2 ENGINEERING REPORT

3.2.1 Landfill Design & Operation Details (R315-310-3(1)(b))

This section addresses cell design, cover design, fill methods, and elevation of the final cover, including plans and drawings.

Landfill Phasing

The total permitted area of the industrial waste landfill is 19.56 acres. The current active industrial waste area will provide approximately 16 years of plant industrial waste capacity. The industrial landfill will be closed in the year 2032. The final closed landfill surface is shown in the Plan Sheet 6.

Industrial Wastes

Industrial wastes will be disposed of within the boundary of the industrial waste landfill, as shown in Plan Sheet 4. Waste materials shall be compacted to the smallest practical volume during placement in the landfill. After reducing the volume of waste, the materials shall be covered with at least 6 inches of compacted fly or bottom ash and then a thin veneer of pyrites or bottom ash by the end of each day that waste is deposited in the landfill. The wastes shall be shaped so that water does not pond on top of the wastes.

Final Cover System

The recommended cover system for the industrial waste area is 2 feet of cover soil, including an 18-inch compacted infiltration layer and a 6-inch layer of topsoil. The cover surface shall be graded in accordance with the Final Grading Plan shown in Plan Sheet 5, 6 and 7. The topsoil cover shall then be fertilized and seeded to promote the growth of vegetation that will minimize erosion.

3.2.2 Run-Off/Run-On Control Systems (R315-310-5(2)(b))

Operation of the industrial landfill will be conducted in a manner that will minimize the amount of storm water run-on and runoff that contacts the waste. As waste is placed in the landfill, application of daily cover will minimize the amount of water contacting the waste. The working area will be sloped to promote drainage away from the waste, and berms will be installed to prevent run on water from contacting the waste, and also to prevent any water that has contacted the waste from leaving the active landfill area. The area surrounding the industrial landfill will be graded such that precipitation is transmitted away from the active landfill area. To promote runoff, as opposed to infiltration of rainfall into the wastes, the waste surface shall be sloped at a minimum of 3 percent to the edges of the landfill.

3.3 CLOSURE PLAN

3.3.1 Closure Plan (R315-310-3(1)(h))

The industrial landfill will be closed in 2032, as detailed in this document.

3.3.2 Closure Schedule (R315-310-4(2)(d)(i))

The industrial landfill will be closed in 2032, as detailed in this document.

3.3.3 Final Cover Design (R315-310-4(2)(c)(iii))

The regulations for final cover systems for Class IIIb industrial landfills in Utah consist of 2 feet of soil cover including 6 inches of topsoil to support vegetative cover. This standard cover system only applies to the plant waste area that will be permitted as an industrial landfill. The recommended cover system for the industrial waste site is 18 inches of compacted borrow cover soil and 6 inches of topsoil, for a total of 24 inches. The current cover design specifies that the 24-inch soil cover will consist of previously stripped on-site soil. The first 18-inches of cover will be compacted to a permeability of no less than 1×10^{-5} cm/sec.

The cover systems will be fertilized and seeded to promote the growth of vegetation that will minimize erosion and maintenance requirements for the cover system. Specific seeding and fertilizing recommendations are summarized in the Landfill Closure section of the *Landfill Operations Plan*, located in Appendix D.

3.3.4 Site Capacity (R315-310-4(2)(d)(ii))

The plant industrial waste site has been designated within a central area of the top of the inactive ash landfill. Based on an average volume of 50,000 cubic yards of waste per year, the current industrial waste area will provide capacity until 2032.

3.3.5 Final Regulatory Inspection (R315-310-4(2)(d)(iii))

After all closure operations are complete, a final inspection will be conducted by the appropriate regulatory agencies.

3.4 POST – CLOSURE CARE PLAN

3.4.1 Post-Closure Care Plan (R315-310-3(1)(h))

The facility will be inspected quarterly for evidence of run-on, erosion of the final cover, and ponding of water on the final cover. Appropriate actions to correct these conditions will be undertaken and may include construction of drainage ditches or diversion dikes to prevent run-on, repair of erosion damage, as well as repair and grading of areas of ponding water on the final cover.

The facility will be inspected quarterly for areas of poor vegetative cover. Such areas will be prepared and reseeded in order to establish adequate vegetative cover. Annual fertilization of the facility will be undertaken at least until the vegetative cover is established sufficiently to render such maintenance unnecessary.

Storm water and erosion control features will be maintained until the vegetative cover is established sufficiently to render such maintenance unnecessary. Berms and drainage ditches will be inspected quarterly for evidence of damage restricted flow caused by erosion or sedimentation. Such blockages will be removed expeditiously.

3.4.2 Title and Land Use Changes/Zoning Restrictions (R315-310-4(2)(e)(v))

At this time, the anticipated land use following closure is wildlife habitat. Any alternative land uses will be submitted to the department for approval prior to initiation of construction or development.

A sample deed notice is outlined below:

CAUTION! THE PROPERTY MORE COMPLETELY DESCRIBED BELOW HAS BEEN USED FOR AN INDUSTRIAL SOLID WASTE DISPOSAL FACILITY. THE COMPLETE LEGAL DESCRIPTION IS:

Insert complete legal description here

DISPOSED MATERIALS INCLUDE SCRAP METAL, WOOD, PAPER, DEMOLITION WASTE, PLASTIC PRODUCTS, FOOD SCRAPS, AND MISCELLANEOUS PLANT INDUSTRIAL WASTE.

Any changes to the record of title, land use, or zoning restrictions will be submitted to the department for approval prior to construction or development.

3.4.3 Post-Closure Maintenance (R315-310-4(2)(e)(iii))

PacifiCorp will maintain the approved final contours and drainage system of the site to minimize precipitation run-on, minimize erosion, optimize drainage of precipitation, and provide a surface drainage system which in no way adversely affects proper drainage from adjacent lands. The facility will be inspected quarterly for evidence of run-on, erosion of the final cover, and ponding of water on the final cover. Appropriate actions to correct these conditions will be undertaken and may include construction of drainage ditches or diversion dikes to prevent run-on, repair of erosion damage, as well as repair and grading of areas to eliminate ponding water on the final cover.

PacifiCorp will assure that a healthy vegetative cover is established and maintained over the site. The facility will be inspected quarterly for areas of poor vegetative cover. Such areas will be prepared and reseeded in order to establish adequate vegetative cover. Annual fertilization of the facility will be undertaken at least until the vegetative cover is established sufficiently to render such maintenance unnecessary.

Storm water and erosion control features will be maintained throughout the post-closure period, or until such maintenance is determined unnecessary. Berms and drainage ditches will be inspected quarterly for evidence of damage or restricted flow caused by erosion or sedimentation. Such blockages will be removed expeditiously.

3.4.4 Contact Information (R315-310-4(2)(e)(vi))

The primary contact for the Huntington Landfill is listed below:

NAME	Darce Guymon
MAILING ADDRESS	P.O. Box 680 Huntington, UT 84528-0000
PHYSICAL ADDRESS	Hwy 31 W. of Huntington City Huntington, UT
TELEPHONE NUMBER	(435) 687-4305

3.5 FINANCIAL ASSURANCE

PacifiCorp has developed Closure and Post-Closure cost estimates for the Huntington Industrial Solid Waste Landfill, pursuant to Utah Division of Waste Management and Radiation Control regulations and associated guidance documents. Estimates are provided for a third-party to conduct and complete closure activities.

3.5.1 Closure Cost Calculations (R315-310-4(2)(d)(iv))

Closure costs were calculated in current dollars, for a third party to conduct and complete closure activities at the landfill. A Landfill Closure Cost Estimate Worksheet was developed using the Utah Division of Waste Management and Radiation Control *Preparation of Solid Waste Facility Closure and Post-Closure Cost Estimates* Guidance Document. The total closure cost for the Huntington Industrial Waste Landfill is **\$676,156.12**. The worksheet is included in Appendix F, along with detailed reference information and assumptions used to develop the costs.

3.5.2 Post-Closure Cost Calculations (R315-310-4(2)(e)(iv))

Post-closure costs were calculated, in current dollars, for a third party to conduct and complete post-closure activities at the landfill. The post-closure period was estimated at thirty years. A Landfill Post-Closure Cost Estimate Worksheet was developed using the Utah Division of Waste Management and Radiation Control *Preparation of Solid Waste Facility Closure and Post-Closure Cost Estimates* Guidance Document. The total post-closure cost for the Huntington Industrial Waste Landfill is **\$1,932,202.47**. The worksheet is included in Appendix F, along with detailed reference information and assumptions used to develop the costs.

3.5.3 Financial Assurance Mechanism (R315-309-1(1) and R315-310-3(1)(j))

A corporate financial test agreed upon between PacifiCorp and the Utah Division of Waste Management and Radiation Control will be used to ensure that closure and post-closure activities are completed. Financial Assurance information is located in Appendix G.

4.0 REFERENCES

Huntington Power Plant, *Landfill Operations Manual*.

Huntington Power Plant, *Plant Emergency Procedures (HTG-SAF-002)*.

Utah Division of Waste Management and Radiation Control, *Solid Waste Rules (Section R315-301 through 32)*.

Utah Division of Waste Management and Radiation Control -Solid Waste Program, Various Guidance Documents.

Discussions with PacifiCorp personnel

Attachment 2

Landfill Operations Landfill Design, Final Cover and Closure Plans

APPENDIX D.
Huntington Power Plant Landfill Operations Plan

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Introduction

The Huntington Plant is a coal-fired electrical generation plant owned and operated by PacifiCorp and located near Huntington, Utah. The Huntington Plant disposes of industrial wastes at its designated industrial landfill site located near the power plant facility. The industrial landfill has an expected life through 2032.

This *Landfill Operations Plan* describes the physical characteristics of the site, as well as details and procedures for industrial waste disposal, remaining development of the industrial landfill, site drainage and storm water control, and closure and post-closure of the industrial landfill.

Existing Site Operations

The Huntington Power Plant produces the following wastes associated with the electric generation operations: pyrites, slaker grit, fly ash, bottom ash, and flue gas desulfurization materials. These wastes are disposed of in the coal combustion residual landfill.

In addition, non-combustion wastes from dredging ponds and basins, sludges from sumps and vessels, and plant industrial wastes are generated and disposed of at the industrial landfill. The industrial landfill is a specific area above original ash landfill and is subject to the conditions of an industrial waste permit issued by the State of Utah.

The hauling and placement of wastes is contracted to a third party trucking company, who provides the equipment and labor necessary to haul, place, and compact the wastes in the industrial landfill. An existing gravel road is the primary access road from the power plant to the landfill. Industrial wastes are placed in the designated industrial landfill area shown in the topographic map in Plan Sheet 1, and covered with ash each day.

Environmental Site Conditions

The environmental site conditions discussed below include a description of the general landfill area and general site drainage conditions.

The industrial waste landfill is located near the Huntington Power Plant in Emery County, Utah. The total permitted landfill area is approximately 19.56 acres. The permit boundary and active industrial waste area to be filled is shown in Plan Sheet 4. The existing terrain has slopes that vary from 3:1 (horizontal:vertical) to approximately 10:1 (h:v). The predominant slope is approximately 10:1 (h:v). The surface soils in the vicinity are alluvial fans of well drained calcareous soils that are medium textured silt, sand, and cobbles. Formations of limestone, sandstone, siltstone, shale conglomerate and coal are at varying depths below the surface, but no greater than 50 feet.

Average precipitation is between 6 and 10 inches per year, with the main season of rainfall occurring in late July through October. 10 to 20 inches of snow can be expected in the winter, representing between one and two inches of the annual precipitation. Skies are clear about 225 days per year. Winds are light to moderate in all seasons, generally blowing from the east in the morning and from the west in the evening. Temperature ranges normally from a low of near 10 degrees Fahrenheit in January to as high as 90 degrees in July.

Design Assumptions

Critical design assumptions used in preparing this plan include a description and quantity of the industrial waste, general characterization of the waste, and the regulatory framework for disposal of industrial wastes. Please refer to the Reference Drawings in Appendix A for landfill design and site development details.

Waste Description and Quantities

The different industrial wastes currently disposed of at the landfill include the following:

- Miscellaneous industrial wastes are produced including paper products, plastic drums, dirt, wood products, metal drums, lunchroom wastes, scrap metal, and drained filters. Hazardous or PCB containing wastes are excluded from the landfill.
- Sludges are produced from the duct and chimney buildup, wash bay sump, ash water storage tanks, plant drains and manholes, auto shop sump, lime slaker and tank, and the domestic wastewater treatment plant. All sludges must be dewatered and must pass a paint filter test before being disposed of in the landfill.
- From May 2010, to September of 2011, fill rates are expected to be approximately 100,000 cubic yards/year. Once the new scrubber system is installed, the fill rates are expected to be approximately 50,000 yards/year.

The waste materials shall be processed to the smallest practical volume during placement in the landfill. After reducing the volume of the wastes, the materials shall be covered with at least 6 inches of compacted fly or bottom ash and then a thin veneer of pyrites or bottom ash by the end of each day that trash is deposited in the landfill. The wastes shall be shaped so that water does not pond on top of the wastes. Based on current aerial surveying data and projected disposal rates, the industrial waste landfill will provide disposal capacity until the year 2032.

Hazardous and PCB containing wastes are excluded from the industrial landfill. At least one percent (1%) of waste loads will be reviewed and characterized in detail and recorded on a log sheet. Inspection procedures will consist of the waste being spread out on the ground, and the perimeter of the waste walked to check for hazardous or PCB containing materials. Inspection details will be recorded on a log sheet. The log sheet instructs that hazardous wastes are not permitted in the landfill, and contains a list of prohibited materials. Any prohibited materials will be removed from the waste load, containerized, and reported to the Landfill Manager. The completed inspection forms are maintained as part of the operating record.

Regulatory Requirements

Utah Administrative Code Regulation R315-304 applies to the Huntington Plant landfill operations. These regulations classify industrial landfills into two categories: Class IIIa and Class IIIb. The Huntington Plant industrial landfill meets the requirements for a Class IIIb classification. The landfill is not open to the public, it receives waste generated solely from on site and it does not receive hazardous waste. Industrial waste has been received at the landfill prior to 1998; thus the landfill is an existing Class IIIb landfill. Existing Class IIIb landfills have no siting restrictions.

The regulatory requirements for operation, closure and post-closure care for Class IIIb Landfills are summarized:

1. Develop, keep on file, and abide by a plan of operation approved by the Utah Division of Waste Management and Radiation Control Director. The plan of operation shall include the following:
 - A. Intended Schedule of Construction
 - B. Description of on-site solid waste handling procedures
 - C. Schedule for conducting inspections and monitoring the facility
 - D. Contingency plans in the event of a fire or explosion
 - E. Contingency plans for other releases such as failure of run-off containment system
 - F. Plan to control fugitive dust
 - G. Procedures for excluding the receipt of hazardous waste or waste containing PCBs
 - H. Closure and post-closure care plans
 - I. Cost estimates and financial assurance
 - J. General training and safety plan for site operators
2. Maintain and keep on-site or at a location approved by the DWMRC Director the following:
 - A. Weights or volumes, number of vehicles entering and the types of wastes received each day
 - B. Deviations from the approved plan of operation
 - C. Training and notification procedures
 - D. Inspection log
 - E. Closure and post-closure care plans
 - F. Cost estimates and financial assurance documentation
3. Prepare an annual report and place the report in the facility's operating record. A copy of the report shall be submitted to the Executive Secretary by March 1st of each year. The annual report shall cover facility activities during the previous year and must include the following information:
 - A. Name and address of facility
 - B. Calendar year covered by the report
 - C. Annual quantity in tons or cubic yards and estimated in-place density in pounds per cubic yard of solid waste handled

- D. Annual update of the required financial assurance mechanism
 - E. Training programs or procedures completed
4. Inspect the landfill facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of wastes to the environment or to a threat to human health. These inspections must be conducted with sufficient frequency (no less than quarterly) to identify problems in time to correct them before they harm human health or the environment. The inspection log or summary shall include the following:
 - A. Date and time of inspection
 - B. Printed name and handwritten signature of the inspector
 - C. Notation of observations made and the date and nature of any repairs or corrective action
 - D. Logs must be kept for a minimum of three years
 5. Design the landfill to minimize the acceptance of liquids and control storm water run-on/run-off.
 6. Provide for the following:
 - A. Fencing at the property boundary or the use of other artificial or natural barriers to impede entry by the public and large animals. A lockable gate shall be required at the entry to the landfill.
 - B. Erecting a sign at the facility entrance that identifies at least the name of the facility, unacceptable materials, and an emergency telephone number.
 - C. Adequate fire protection to control any fires that may occur at the facility.
 - D. Preventing the potential harborage in active areas of rat and other vectors
 - E. Minimize the size of the unloading area and working face as much as possible
 - F. Approach and exit roads of all-weather construction, with traffic separation and traffic control on-site and at the site entrance
 - G. Communication, such as telephone or radio, between employees working at the landfill and management offices to handle emergencies.
 7. Prevent the disposal of unauthorized waste by ensuring that at least one person is on site during hours of operation and shall prevent unauthorized disposal during off-hours by controlling entry.
 8. Employ measures to prevent emissions of fugitive dusts, when weather conditions or climate indicate that transport of dust off-site is liable to create a nuisance.
 9. Cover timber, wood, and other combustible waste with a minimum of six inches of soil, or equivalent, to avoid a fire hazard.

10. Plats and a statement of fact concerning the location of any disposal site shall be recorded as part of the record of title with the county recorder not later than 60 days after certification of closure. Proof of the record of title filing shall be submitted to the Executive Secretary.
11. Close the facility in a manner that will:
 - A. Minimize the need for maintenance
 - B. Minimize or eliminate threats to human health and the environment from escape of solid waste constituents, leachate, gases, or contaminated run-off to the groundwater, surface water, or the atmosphere
 - C. Prepare the facility for the post-closure period
12. Develop, keep on file and abide by a closure plan approved by the DWMRC Director.
13. The closure plan shall project time intervals at which sequential partial closure, if applicable, is to be implemented and identify closure cost estimates and projected fund withdrawal intervals for the associated closure costs from the approved financial assurance instrument.
14. Landfills shall be closed by:
 - A. Leveling the waste
 - B. Covering the waste with a minimum of 2 feet of soil, including six inches of topsoil
 - C. Contouring the cover to minimum 3 percent surface slopes and maximum 33 percent side slopes, except where integrity and erosion control can be demonstrated at steeper slopes
15. Notify the DWMRC Director of the intent to implement the closure plan in whole or part, 60 days prior to the project final receipt of waste at the unit or facility.
16. Commence implementation of the closure plan, in part or whole, within 30 days after final elevation is attained in part or all of the facility closure plan. Closure activities shall be completed within 180 days from their starting time.
17. Within 90 days following completion of closure, submit to the DWMRC Director the following:
 - A. Facility or unit closure plan sheets signed by a professional engineer registered in the state of Utah, and modified as necessary to represent as-built changes to final closure construction as approved in the closure plan
 - B. Certification by the owner or operator and a professional engineer registered in the state of Utah that the site or unit has been closed in accordance with the approved closure plan.
18. Provide post-closure activities for facility maintenance and monitoring of gases, land, and water for 30 years or as long as the DWMRC Director determine is

necessary for the facility to become stabilized and to protect human health and the environment.

19. Develop, keep on file, and abide by a post-closure plan. The post-closure plan shall project time intervals at which post-closure activities are to be implemented and identify post-closure cost estimates and project fund withdrawal intervals from the selected financial assurance instrument.
20. Commence post-closure activities after closure activities have been completed.
21. Submit a certification to the DWMRC Director when post-closure activities are complete, signed by the owner or operator and a professional engineer registered in the state of Utah stating why post-closure activities are no longer necessary.

Landfill Phasing

The final closed landfill surface is shown in Plan Sheet 4. This configuration was based on the following constraints:

- Maximum elevation of 6,875 feet which matches the adjacent undisturbed land.
- Maximum side slopes of 3:1 (h:v).
- Placement of plant industrial wastes only starting in the Year 2010 and running to the Year 2032.
- Closure of the industrial waste landfill according to Utah Division of Waste Management and Radiation Control regulations in the Year 2032.

Industrial wastes shall be disposed of within the locations shown on Plan Sheets 1, 3, and 4, which will keep the industrial wastes in one location for the remaining life of the landfill. These materials shall be processed to the smallest practical volume during placement in the landfill.

Industrial Wastes

The industrial waste landfill site receives miscellaneous non-hazardous wastes generated on site, including some food scraps, paper products, empty metal, plastic and glass containers, dunnage, construction materials and other trash. The industrial waste sites will be operated in compliance with Utah Division of Waste Management and Radiation Control regulations. Non-commercial industrial solid waste disposal facility requirements are as follows: (Ref Utah R315-304-6)

- a. Materials disposed of in the landfill will be compacted to the smallest practical volume before final placement against the working face and covered.
- b. At the end of the operating day when material is disposed of in the landfill, after compacting and pushing the waste material against the working face, the material will be completely covered with at least 6 inches of earth, fly ash or other suitable cover material. This is part of the litter, rodent and insect control procedures.
- c. The working area will be developed so that water will not be allowed to pond above or in the operating area. The working face will be kept small for fugitive dust control.

- d. When the primary waste area has been filled to design capacity, the cell will be covered with 2 feet of compacted cover soil, including six inches of topsoil. It is possible that cells of ash could be placed above the industrial waste fill sometime in the future. For that reason, the final vertical and horizontal dimensions of the closed industrial waste area will be established by land survey and permanently recorded, along with dates the facility was opened and closed.
- e. Qualified personnel shall be at the facility to supervise activities during the operating days waste material is hauled to the facility to ensure the waste material is dumped in the designated location, compacted, and covered by the end of that operating day.
- f. Open burning shall not be permitted.
- g. Litter control along the access roads and at the facility shall be accomplished by clean-up of the areas as often as necessary to prevent unsightly conditions or windblown materials leaving the site.
- h. Provisions for dust control at the facility and along the access roads shall be implemented as necessary, normally in conjunction with similar controls associated with the ash landfill operations.
- i. Appropriate rodent and insect control procedures shall be implemented as necessary.
- j. Note that water treatment plant and digested wastewater treatment plant sludges containing no free liquid shall be placed on the working face and covered with other solid wastes or suitable cover material.
- k. Monthly inspections of the industrial waste site will be conducted to identify problems in time to correct them before they harm human health or the environment.
- l. The *Huntington Plant Emergency Procedures* shall be abided by in the event of a fire, explosion, and other releases such as explosive gases or runoff collection failure.
- m. A corrective action program shall be implemented if ground water is contaminated. Please refer to the *Monitoring* section of this document for details.
- n. Hazardous or PCB containing wastes are excluded from the landfill. Each load of waste material is reviewed and characterized by the truck driver and recorded on a log sheet. The driver is instructed and the log sheet reminds him that hazardous wastes are not permitted in the landfill.
- o. In the occurrence that the industrial landfill is inoperative, solid waste will be sent to the ECDC Landfill located in East Carbon or the Emery County Landfill.

Slopes

Final side slopes of the industrial landfill will be no steeper than 33%. It is suggested that temporary slopes be the same. The final top slope shall contain a crest with 3% minimum slopes (See Plan Sheet 5).

Alternative Plan for Waste Handling

In the occurrence that the industrial landfill is inoperative, solid waste shall be sent to the ECDC Landfill located in East Carbon or the Emery County Landfill.

Monitoring

Inspections will be conducted monthly to identify problems in time to correct them before they harm human health or the environment.

Corrective Action Plan for Contaminated Ground Water

An investigation shall be initiated if contamination is detected in ground water. The investigation shall involve working in accordance with state agencies to determine the extent of the problem and the proper solution.

Contingency Plan

The "*Huntington Plant Emergency Procedures*", shall be abided by in the event of a fire, explosion, and other releases such as explosive gases or run-off collection failure.

Landfill Closure

This section covers the final cover system, seeding and fertilizing, storm water management, and access road maintenance.

Final Cover System

The regulations for final cover systems for Class IIIb industrial landfills in Utah consist of 2 feet of soil cover including 6 inches of topsoil to support vegetative cover. This standard cover system only applies to the plant waste area that will be permitted as an industrial landfill. The recommended cover system for the industrial waste site is 18 inches of compacted borrow cover soil and 6 inches of topsoil, for a total of 24 inches. The current cover design specifies that the 24-inch soil cover will consist of previously stripped on-site soil. The first 18-inches of cover will be compacted to a permeability of no less than 1×10^{-5} cm/sec.

The critical factor for a cover system is to minimize long-term erosion that minimizes the maintenance requirements for the cover system. As waste placement nears final grade, the surface shall be graded in accordance with Plan Sheet 4 that shows the final cover system topography. The appropriate 18 inches of compacted borrow soil and 6 inches of topsoil shall then be applied, fertilized and seeded to promote the growth of vegetation that will minimize erosion. The specific seeding and fertilizing recommendations are summarized in the following paragraphs.

Seeding and Fertilizing

Once the final landfill slopes and elevations have been formed, a layer of bottom ash and pyrites shall be placed to reduce the generation of dust and to provide a suitable surface for growing vegetation. Next, a soil cap shall be placed over the bottom ash as the final root zone material. The recommended cover system for the industrial waste site is 18 inches of compacted borrow cover soil and 6 inches of topsoil, for a total of 24 inches.

The seeding procedure of the selected erosion control species will be dependent on the slope of the land and the selected method of seeding. On the flatter slopes (3:1 or flatter) seeding is best done with a Brillion-type grain seed drill followed by a ring roller. Prior to seeding on

the flatter slopes a commercial fertilizer (500 pounds per acre of 15-15-15 or equivalent) shall be broadcast over the entire area to be seeded. On steeper slopes (3:1 or steeper), hydro-seeding is recommended. Fertilization can be done in the hydro-seeding or by hand broadcasting. If the area is to be hydro-seeded, then tracking with a tracked vehicle up and down the slope to create seeding pockets shall be performed (track cleats create small pockets in the soil). Hydro-seeding could consist of fertilization, seed mix, an appropriate mulch material at 1,500 dry pounds per acre, and a tackifier at manufacturer recommended coverage.

If temporary irrigation is available, then seeding can be done in September or early October. Otherwise seeding should be done in mid-October. An appropriate final reclamation seeding mix for Desert Salt Shrub, as defined by the Price, Utah BLM, is presented in Table 1.

Another option for grassing the landfill would be the recommendations of the Utah Department of Wildlife Resources. These recommendations were developed with the intent of producing browse for deer. The requirements from Wildlife Resources involve more stringent seeding requirements that are not required for erosion control. Unless the more stringent deer browse seeding requirements are necessary, it is recommended that the natural seed mix described in Table 1 be used for the final vegetative cover.

Table 1
Recommended Vegetative Cover

Grasses and Forbs	Scientific Name	Pounds/acre
Indian ricegrass	Oryzopsis hymenoides	5
Squirreltail	Elymus elymoides	2
Galleta	Hilaria jamesii	2
Lewis flax	Linum perenne lewisii	1
Palmer penstemon	Penstemon palmerii	1
Gooseberryleaf globemallow	Sphaeralcea grossulariifolia	0.5
Shrubs		
Forage kochia	Kochia prostrata	2
Rubber rabbitbrush	Chrysothamnus nauseosus	0.5
Fourwing saltbush	Atriplex canescens	1
Winterfat	Krashenimkovia (Eurotia) lanata	2
TOTAL		17

Storm Water Management

A detailed description of the storm water management system at the landfill is included in the plant-wide Storm Water Pollution Prevention Plan. The following discussion presents a brief description of the required components for storm water management for the landfill area.

Operation of the industrial landfill will be conducted in a manner that will minimize the amount of storm water run-on and runoff that contacts the waste. As waste is placed in the landfill, application of daily cover will minimize the amount of water contacting the waste. The working area will be sloped to promote drainage away from the waste, and berms will be installed to prevent run on water from contacting the waste, and also to prevent any water that has contacted the waste from leaving the active landfill area. The area surrounding the industrial landfill will be graded such that precipitation is transmitted away from the active landfill area, and then to the detention ponds at the toe of the slope. To promote runoff, as opposed to infiltration of rainfall into the wastes, the waste surface shall be sloped at a minimum of 3 percent to the edges of the landfill. Any run-on from offsite areas shall be collected in swales at the landfill boundary.

Post-Closure Plan

PacifiCorp will provide care for the landfill facility following the date of final completion of closure in a manner that assures the facility and facility structures are maintained and operated as intended.

Post-Closure Care Activities

PacifiCorp will maintain the approved final contours and drainage system of the site to minimize precipitation run-on, minimize erosion, optimize drainage of precipitation, and provide a surface drainage system which in no way adversely affects proper drainage from adjacent lands. The facility will be inspected quarterly for evidence of run-on, erosion of the final cover, and ponding of water on the final cover. Appropriate actions to correct these conditions will be undertaken and may include construction of drainage ditches or diversion dikes to prevent run-on, repair of erosion damage, as well as repair and grading of areas of ponding water on the final cover.

PacifiCorp will assure that a healthy vegetative cover is established and maintained over the site. The facility will be inspected quarterly for areas of poor vegetative cover. Such areas will be prepared and reseeded in order to establish adequate vegetative cover. Annual fertilization of the facility will be undertaken at least until the vegetative cover is established sufficiently to render such maintenance unnecessary.

Drainage ditches, berms, and the storm water retention ponds will be maintained until the vegetative cover is established sufficiently to render such maintenance unnecessary. Drainage ditches and berms will be inspected quarterly for evidence of damage or restricted flow caused by erosion or sedimentation. Such blockages will be removed expeditiously.

Dust Management

Detailed descriptions of the methods to be implemented for controlling dust are included in the Huntington Plant Title V Air Permit and shall be referred to as necessary.

Operational Documentation

Monitoring the effectiveness of this operations plan shall be performed as part of the control monitoring testing. As part of the annual reporting process required by the Utah Division of Waste Management and Radiation Control, PacifiCorp's Landfill Manager will evaluate the effectiveness of the Plan and make any procedural or plan changes as necessary. This section also includes additional measures that will be completed to ensure that the *Landfill Operations Plan* meets its original objectives.

The Huntington Plant's designated Landfill Manager and individual to whom the waste hauling and site maintenance contractor is responsible to is:

Darce Guymon
Huntington Plant
Highway 31 W. of Huntington City
Huntington, Utah
(435) 687-4305

The Huntington Plant may change the Landfill Manager periodically as needed. The Landfill Manager shall be designated by the Huntington Plant management. All revisions to

the *Landfill Operations Plan* shall be done by the Landfill Manager and approved by the Huntington Plant management.

Facility Inspections

Facility inspections can be conducted at the discretion of the Landfill Manager. The industrial waste areas shall be inspected to ensure that the requirements of Utah Administrative Code Section R315-304 are being satisfied.

Training

The Huntington Plant through the Landfill Manager shall conduct ash pile and industrial waste training seminars to involved PacifiCorp employees and Contractor's personnel. Generally, training seminars will be conducted when operating personnel changes are made by PacifiCorp or the Contractor. Also, training seminars are to be conducted when major changes in the *Landfill Operations Plan* occur. This training shall be performed as needed to assist the employees in executing and fulfilling their responsibilities. Training records will be kept identifying who was trained, the training subject, and the date trained.

Attachment 3

Landfill Inspection Forms

APPENDIX C
Landfill Inspection Forms

Huntington Plant Class IIIb Industrial Waste Landfill

Name: _____

Signature _____

Date: _____

Item	N/A	Y	N	Comments/Resolution of Problems
Is there evidence of fire (e.g. smoke, heat, or burning vegetation) in the IIIb landfill?				
Is there a fire extinguisher present at the IIIb landfill entrance?				
Does the IIIb landfill need repair because of erosion?				
Is the soil cover adequate over the IIIb landfill so that garbage is not exposed?				
Is there evidence (or knowledge) of a discharge from the IIIb landfill retention ponds?				
Are all ditches and berms intact and able to contain expected storm water from the IIIb landfill site?				
Are entrance roads and slopes free of garbage?				
Are all erosion control measures (e.g., silt fences, hay bales, screens over inlets and culverts, etc.) at the IIIb landfill site in good repair and operating properly?				
Have areas at and adjacent to the landfill been visually inspected?				
Are there any improper wastes in the IIIb landfill (liquids, unpunctured aerosol cans, unsmashed drums, any hazardous material, etc.)				
Is there fugitive dust at or around the IIIb landfill which may warrant modification to the fugitive dust plan?				
Is there a sign identifying the name of facility, unacceptable material, and emergency telephone number?				
Is there evidence of harborage of rats or other vectors?				
Is the unloading area and working face minimized as much as possible?				

The Huntington Plant is enclosed by a fence and all access points (gates) are controlled. Waste log sheets are submitted to and kept on file by the plant environmental engineer.

Random Inspection Report Form

Inspector: Print Name

Date:

Time:

Signature:

Facility:

Type:

Weights & Measures (Taken from Report of Driver)		
Weight of Load	<input type="text"/>	lbs
Estimate of Uncompacted Volume of Load	<input type="text"/>	Cu yds

Brief Description of Contents of Load
 (Example: Waste Paper, Cardboard, Pallets, Pigs, Plastic, Used Rags, Empty drums, Empty buckets, Punctured aerosol cans, Floor sweepings. List what you see in this load.)

Prohibited Materials - list and remove any you see:
 (example: Non-punctured aerosol cans, drums or buckets partially full, any liquid waste, mercury, flourescent bulbs without green ends, lead acid batteries, NiCad batteries, any hazardous or PCB-containing wastes must be separated and removed from this site.)

Please place prohibited materials removed from the landfill in the plastic drum near the gate. Thank you.

A minimum of 1% of incoming loads will be spread on the ground to allow visual inspection by an inspector other than the contracted drivers. This form is used to record those inspections and becomes a part of the operating record.