

Expiration Date:
Permit Number:
File Number: 107672
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WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
Eastern Region
700 S.E. Emigrant Avenue, Suite #330, Pendleton, OR 97801
Telephone: (541) 276-4063

Issued pursuant to ORS 468B.050

FACILITY:

Hermiston Generating Company, LP
78415 Westland Road
Hermiston, OR 97838

PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232-2155

PLANT TYPE AND LOCATION:

Gas-Powered Electricity Generation Plant
Hermiston, OR

Land-application site:
Madison Farms
7 miles south of Hermiston Generating
Hermiston, OR

SOURCES COVERED BY THIS PERMIT:

<u>Type of Waste</u>	<u>Method of Disposal</u>
Industrial Wastewater	Land Application

RIVER BASIN INFORMATION:

Basin: Umatilla
Sub-Basin: Umatilla
Hydro Code: 27B-UMAT-13 N
County: Umatilla

Nearest surface stream which would receive waste if it were to discharge: Umatilla River
Applicable Standards: OAR 340-040, OAR 340-041-0642 to -0655

Issued in response to Application No. 996455 received 2-25-93.

This permit is issued based on the land use findings in the Final Order in the Matter of the Thermal Power Plant Site Certificate for the Hermiston Generating Project, Request for Amendment #5.

Barbara D. Sellars, Water Quality Manager
Eastern Region

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the Permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

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Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharge to an underground injection control system.

SCHEDULE A

Waste Disposal Limitations

1. The Permittee is authorized by this permit to land apply the following water from the sources indicated. The water is to be applied to crops and on acreage approved by the Department and in accordance with the conditions of this permit. Without prior approval from the Department, no additional sources of water shall be added to the land application program.
 - a. Co-gen Wastewater: shall only include cooling tower blowdown and clarifier drawdown water; and
 - b. Supplemental Fresh Water: shall only include Columbia River Water and incidental precipitation.
2. There shall be no direct discharge to Waters of the State.
3. All wastewater and supplemental fresh water shall be managed in a manner that will prevent:
 - a. A violation of the Department's Groundwater Quality Protection Rules (OAR 340-040); and
 - b. A violation of any permit-specific groundwater concentration limits, established pursuant to OAR 340-040-0030, which have been subsequently incorporated into the permit.
4. Without prior written approval from the Department, TDS loading from Co-Gen wastewater shall not exceed 1200 lbs/acre/year to any single circle.
5. Co-Gen wastewater shall only be applied to the crops identified in the approved OM&M Plan, and any amendments to the plan approved in writing by the Department.
6. The combined Co-Gen wastewater and supplemental fresh water shall not exceed the crop-specific irrigation needs and allowable leaching rates specified in the approved OM&M Plan. For additional crops other than those approved in Condition #5 above, crop irrigation needs and leaching requirements shall be specified in writing by the Department. Leaching below the root zone in excess of the maximum allowed, which is prescribed above, is prohibited. However, no wastewater shall be land applied until the OM&M Plan is approved in writing by the Department.
7. Total nitrogen from wastewater, supplemental fresh water, commercial fertilizer, residual soil nitrogen, and other nitrogen sources shall not exceed the agronomic rate for the specific crop grown. Agronomic rates shall be specified in the OM&M Plan and shall be determined based on Oregon State University Fertilizer Guides or other scientific literature that has been approved in writing by the Department.
8. Co-gen wastewater shall only be applied to the following acreage, unless otherwise approved in writing by the Department:

The pivot circles are located on Madison Farms at the latitude and longitude, and section, township and range shown below (They are shown in Figure 1, Site Certificate Amendment #5 Technical Standards Report, Hermiston Generating, LP, Hermiston, Oregon):

- Circle 43 - 45°42'58" north, 119°24'28" west (S26 T3N R28E)
- Circle 44 - 45°42'35" north, 119°24'28" west (S26 T3N R28E)
- Circle 45 - 45°42'04" north, 119°24'25" west (S35 T3N R28E)
- Circle 46 - 45°42'08" north, 119°25'04" west (S34 T3N R28E)
- Circle 47 - 45°41'36" north, 119°25'24" west (S34 T3N R28E)
- Circle 48 - 45°41'36" north, 119°25'43" west (S34 T3N R28E)

9. Only Columbia River water and incidental precipitation shall be used as supplemental fresh water on the acreage used for land application of Co-gen wastewater. No groundwater shall be used for irrigation on the circles receiving Co-gen wastewater. Unless otherwise approved, Columbia River water shall be taken from the west end of the Columbia Improvement District Canal on the Madison Farms property in Section 7, T3N, R27E.
10. Combined annual Co-Gen wastewater and supplemental Columbia River Water shall be applied in a ratio that will not exceed a combined concentration of 450 mg/l TDS.
11. Prior to initiating land application of wastewater, the permittee must submit an OM&M Plan to the Department and receive written approval (Schedule C, Condition 1a). Upon the Department's written approval of an OM&M Plan, all activities pertaining to the management, treatment, and disposal of the authorized wastes shall be conducted in accordance with the approved OM&M Plan, and any amendments to the plan approved in writing by the Department. No changes may be made in the approved OM&M Plan without written approval from the Department.
12. Land application of the authorized wastes shall:
 - a. Be conducted in a manner that prevents discharge of wastewater or contaminated drainage to waters of the state;
 - b. Be distributed as evenly as practicable within each land application unit;
 - c. Only be conducted on lands where a crop will be grown in accordance with the conditions of this permit;
 - d. Not occur during freezing and thawing cycles, nor during or after a precipitation event, nor any other conditions that may cause ponding and/or runoff from the site;
13. Based on monitoring data, additional information, changed standards, changed conditions or any other reason pursuant to applicable rules or statutes, the Department may reopen this permit to include new and/or revised waste disposal limitations and/or groundwater concentration limits.

SCHEDULE B

Minimum Monitoring and Reporting Requirements (unless otherwise approved in writing by the Department). These Minimum Monitoring and Reporting Requirements become effective upon initiation of land application.

1. Monitoring Requirements

a) Facility Monitoring

The Permittee shall monitor the operation and efficiency of the Co-gen wastewater treatment and land application facilities. Following Department approval, facility monitoring shall be in accordance with the approved OM&M Plan (See Schedule C) and any amendments to the plan approved in writing by the Department. Minimum monitoring shall include the following items or parameters:

Item	Monitoring Frequency	Monitoring Point	Type of Monitoring	Parameter
Inspect land application areas, equipment and pipeline.	Daily when operating, weekly when not	All fields ^{1/} , pipelines, pumping stations	Record Log	Damaged Equipment, leaks, overflows, field conditions, etc.
Co-gen Waste Water	Daily	Flow Meter at Hermiston Generating Plant	Meter Reading	Flow (gallons) to Madison Farms
A. Quantity				
B. Quality	Weekly	Sample Port at Hermiston Generating Plant	Grab Sample	pH, EC, TKN, NH ₄ -N, NO ₃ -N, COD, TSS, TDS, VDS
	Monthly	Sample Port at Hermiston Generating Plant	Grab Sample	Na, Mg, Ca, Cl, SO ₄ -S, K, P, CO ₃ , HCO ₃
Columbia River Water	Daily	Flow Meter At Booster Station #1	Meter Reading	Flow (gallons) to Application Site
A. Quantity				
B. Quality	May, July, September	Irrigation Canal ^{2/}	Grab Sample	pH, EC, TKN, NH ₄ -N, NO ₃ -N, COD, TSS, TDS, VDS
	July	Irrigation Canal ^{2/}	Grab Sample	Na, Mg, Ca, Cl, SO ₄ -S, K, P, CO ₃ , HCO ₃
Irrigation Volume	Weekly	Flow Meter at each Pivot ^{1/}	Meter Reading	Flow (gallons) to individual pivot

Crop Uptake, Yield	Each Cutting/Harvest	All Fields ^{1/}	Composite Sample by Field	Removed: Tons, Total N, Total salts; Dates Harvested; Forage/Crop Analysis: Moisture, Total N, protein, and ash.
Soil	March/April and October/ November (May petition for sample frequency reduction after two years)	All Fields ^{1/}	Composite Sample by Field by soil horizon 0 - 1', 1 - 2', 2 - 3', 3 - 4', and 4' - 5'	pH, EC _e , Soluble Salts, O.M., TKN, NO ₃ -N, NH ₄ -N, available P, Extractable Salts (Na, Ca, Mg, K, SO ₄ -S, Cl)
	March/April and October/ November (May petition for sample frequency reduction after two years)	All Fields ^{1/}	Composite Sample by Field by soil horizon 0 - 1', and 1 - 2'	Exchangable Sodium Percentage
Soil Moisture	Weekly during irrigation activities	All Fields ^{1/} - soil moisture stations	Soil moisture reading	Soil moisture (as approved in OM&M Plan)

^{1/} All fields includes Circles 43-48 on Madison Farms as defined in Item #6, Schedule A.

^{2/} Columbia Improvement District Canal Intake, as described in Item #9, Schedule A.

b. Groundwater Monitoring

If groundwater monitoring wells are installed, pursuant to Schedule C, and until a Groundwater Monitoring Plan is approved, groundwater monitoring shall include the following parameters:

Item or Parameter	Minimum Frequency	Type of Sample
pH	Quarterly	Field Measurement
Nitrate – N	Quarterly	Grab
TKN	Quarterly	Grab
Specific Electrical Conductance	Quarterly	Field Measurement
Sodium	Quarterly	Grab
TDS	Quarterly	Grab

Following approval, groundwater monitoring shall be in accordance with the approved Groundwater Monitoring Plan (See Schedule C). At a minimum, groundwater monitoring shall be quarterly (4x/year) at equal intervals.

2. **Annual Reporting Requirements**

- a. On or before June 15 of each calendar year, the Permittee shall submit an annual facility monitoring report to the Department that summarizes operations for the preceding year. Following approval, annual reporting and data analyses shall be in accordance with the approved OM&M Plan and Groundwater Monitoring Plan (if required pursuant to

Schedule C, Condition 3), and any amendments to the plans approved in writing by the Department.

- b. On or before February 1 of each calendar year, the Permittee shall submit an annual update of the approved OM&M Plan for Department approval. At a minimum the updates will include the proposed application areas, crops to be grown the following year, proposed monthly supplemental and wastewater irrigation rates, and other proposed changes to the OM&M Plan.

3. **Quarterly Reporting Requirements**

If a Groundwater Monitoring Program is required, pursuant to Schedule C, Condition 3, then the Permittee shall submit quarterly groundwater monitoring reports to the Department. Following approval, the reports shall be in accordance with the approved Groundwater Monitoring Plan, and any amendments to the plan approved in writing by the Department. The reports shall be submitted by the 15th day of the month following the close of the calendar quarter.

4. **Groundwater Action Requirements**

If a Groundwater Monitoring Program is required, pursuant to Schedule C, Condition 3, then the following action requirements shall apply:

- a. If monitoring indicates that a concentration limit has been exceeded at a compliance point, the Permittee shall notify the Department within 10 days and shall immediately resample the monitoring well. The results of both sampling events shall be reported to the Department within 10 days of receipt of the laboratory data.
- b. If monitoring indicates a significant increase (increase or decrease for pH) in the value of a parameter monitored, the Permittee shall immediately resample unless otherwise approved in writing by the Department. If the resampling confirms a change in water quality, the Permittee shall:
 - (1) Report the results to the Department within 10 days of receipt of the laboratory data; and
 - (2) Prepare and submit to the Department within 30 days a plan for developing a preliminary assessment unless another time schedule is approved by the Department.

5. Based on monitoring data, additional information, changed standards, changed conditions or any other reason pursuant to applicable rules or statutes, the Department may reopen this permit to include new and/or revised monitoring and/or reporting requirements.

SCHEDULE C

Compliance Conditions and Schedules

1. **Operations, Monitoring and Management Plan**

- a. Not less than 45 days prior to initiation of land application, the Permittee shall submit to the Department for review and approval, a wastewater disposal facility Operations, Monitoring and Management (OM&M) Plan. The OM&M Plan shall specify the allowed crops, maximum allowed irrigation, maximum allowed leaching, and nutrient needs. Upon Department approval, the OM&M Plan shall be implemented. However, no wastewater shall be land applied until the OM&M Plan is approved in writing by the Department.
- b. The OM&M Plan shall be revised as necessary to ensure compliance with the conditions of this permit. Revisions to the OM&M Plan shall be implemented upon Department approval.

2. **Hydrogeologic Characterization Report**

If facility monitoring indicates that hydraulic, nitrate, or TDS loadings exceed the prescribed levels, or if other information indicates that the facility has the potential to impact groundwater, then the Department may require a Hydrogeologic Characterization of the site.

Not less than six months after notification that a hydrogeologic characterization is required, the Permittee shall submit a Hydrogeologic Characterization Report¹ to the Department for review and approval. A work plan may be submitted for approval prior to developing the report.

3. **Groundwater Monitoring Plan**

If after review of the Hydrogeologic Characterization, required pursuant to Condition 2 above, the Department determines that the facility has a potential to impact groundwater, then the Department will require the facility to implement the following Groundwater Monitoring Program:

- a. Not later than 45 days following Department approval of the Hydrogeologic Characterization Report, the Permittee shall submit a Groundwater Monitoring Plan¹ to the Department for review and approval. Upon Department approval, the Groundwater Monitoring Plan shall be implemented.
- b. In conjunction with submittal of the Groundwater Monitoring Plan, the Permittee shall propose for Department approval a submittal date for a Water Quality Analysis Report. The proposed date for report submittal must be the earliest practicable date after completion of nine (9) quarters of groundwater monitoring (to enable the Permittee to establish background groundwater conditions).

4. **Groundwater Concentration Limits or Concentration Limit Variance**

If the Department requires a Groundwater Monitoring Program, pursuant to Condition 3 above, then the permittee shall submit to the Department for review and approval a Water Quality Analysis Report not later than the date approved by the Department under Schedule C, Condition 3.b. for submittal of the report. The report shall include, but not be limited to: a determination of background groundwater quality, an analysis of existing water quality data and existing impacts, and an analysis of potential impacts from facility activities.

Concurrent with submittal of the Water Quality Analysis Report, the Permittee shall:

- a. Propose site-specific concentration limits pursuant to OAR 340-040-0030(3) for the Department's consideration; and/or
 - b. Apply for a concentration limit variance pursuant to OAR 340-040-0030(4).
5. The Permittee is required to meet the compliance dates that have been established in this schedule. Either prior to or not later than 14 days following any lapsed compliance date, the Permittee shall submit to the Department a notice of noncompliance with the established schedule. Any reports of noncompliance shall include the cause of noncompliance.
6. Based on monitoring data, additional information, changed standards, changed conditions or any other reason pursuant to applicable rules or statutes, the Department may reopen this permit to include new and/or revised compliance conditions or schedules.

SCHEDULE D

Special Conditions

1. **Monitoring Well Management/Maintenance**
 - a. The Permittee shall protect and maintain each groundwater monitoring well so that samples can be collected that are representative of actual conditions.
 - b. All monitoring well abandonment, replacement and installation must be conducted to comply with the Water Resources Department Rules (OAR Chapter 690, Division 240) and with the Department's Guidelines for Groundwater Monitoring Well Drilling, Construction, and Decommissioning. All monitoring well repairs, abandonments, replacements and installations must be documented in a report prepared by an Oregon registered geologist.
 - c. If a monitoring well becomes damaged or inoperable, the Permittee shall notify the Department in writing within 14 days. The written report shall describe what problem has occurred, the remedial measures that have been taken to correct the problem, and the measures taken to prevent its recurrence. The Department can require the replacement of inoperable monitoring wells.
 - d. All new and replacement monitoring well locations and designs must be approved in writing by the Department prior to well installation. Well logs and well completion reports shall be submitted to the Department within 30 days of well installation. Reports shall include land survey drawings that depict actual location of all monitoring wells, land application areas, and surface waters.
 - e. Modification and/or abandonment plans must be submitted to and approved in writing by the Department prior to modification and/or abandonment of any existing monitoring well.
2. Prior to constructing or modifying wastewater management, treatment and disposal facilities, detailed plans and specifications shall be submitted to and approved in writing by the Department.
3. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity for good in-plant control and proper action in the event of a spill or accident.
4. An environmental supervisor shall be designated to coordinate and implement all necessary functions related to maintenance and operation of waste management, treatment, and disposal facilities. This person must have access to all information pertaining to the generation of wastes in the various process areas.
5. The Permittee shall notify the Department's Eastern Region office at (541) 276-4063 in accordance with the response times contained in the General Conditions of this permit in the event of any malfunction of the wastewater system to enable coordination of corrective action between the Permittee and the Department.
6. At all times that Permittee is delivering water to Madison Farms under this permit, the Permittee shall maintain a written agreement with the owner of Madison Farms that shall:

- a. Authorize the permitted treatment and disposal activities.
 - b. Authorize DEQ access to the land application site, irrigation system, and records as necessary to monitor permit compliance; and
 - c. Require that the owner of the land application site will either perform all activities necessary to ensure compliance with the permit or allow Hermiston Generating access as necessary to perform the activities.
7. Based on monitoring data, additional information, changed standards, changed conditions or any other reason pursuant to applicable rules or statutes, the Department may reopen this permit to include new and/or revised special conditions.

SCHEDULE F

General Conditions

SECTION A. STANDARD CONDITIONS

1. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws, or regulations.

2. Liability

The Department of Environmental Quality, its officers, agents, or employees shall not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities because of this permit.

3. Permit Actions

After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:

- a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

4. Transfer of Permit

This permit shall not be transferred to a third party without prior written approval from the Department. Such approval may be granted by the Department where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

5. Permit Fees

The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

2. Standard Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will prevent discharges, health hazards, and nuisance conditions.

- b. All screenings, grit, and sludge shall be disposed of in a manner approved by the Department such as to prevent any pollutant from such materials from reaching any waters of the state, creating a public health hazard, or causing a nuisance condition.
- c. Bypassing of untreated waste is generally prohibited. No bypassing shall occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. Noncompliance and Notification Procedures

In the event the permittee is unable to comply with all the conditions of this permit because of surfacing sewage, a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, the permittee shall:

- a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.
- b. Immediately notify the Department's Regional office, so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.
- c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee shall submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

4. Wastewater System Personnel

The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the Department of Environmental Quality to:

- a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;
- b. Have access to and copy any records required to be kept under the terms and conditions of this permit;
- c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

2. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in the permit.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures specified in the most recent edition of **Standard Methods for the Examination of Water and Wastewater**, unless other test procedures have been approved in writing by the Department and specified in this permit.

4. Retention of Records

The permittee shall retain records of all monitoring and maintenance information, including all calibrations, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. The Director may extend this period at any time.

SECTION D. REPORTING REQUIREMENTS

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the Department. All construction, installation or modification shall be in strict conformance with the Department's written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified by the official applicant of record (owner) or authorized designee.

SECTION E. DEFINITIONS

1. BOD₅ means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. FC means fecal coliform bacteria.
4. NH₃-N means Ammonia Nitrogen.
5. NO₃-N means Nitrate Nitrogen.
6. NO₂-N means Nitrite Nitrogen.
7. TKN means Total Kjeldahl Nitrogen.
8. Cl means Chloride.
9. TN means Total Nitrogen.

10. mg/L means milligrams per liter.
11. ug/L means micrograms per liter.
12. kg means kilograms.
13. GPD means gallons per day.
14. MGD means million gallons per day.
15. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
16. Total residual chlorine means combined chlorine forms plus free residual chlorine.
17. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. Composite sample means a combination of samples collected, generally at equal intervals over a 24-hour period, and apportioned according to the volume of flow at the time of sampling.
19. Week means a calendar week of Sunday through Saturday.
20. Month means a calendar month.
21. Quarter means January through March, April through June, July through September, or October through December.