



May 03, 2023

Mr. Hoa (Andy) Truang, Senior Environmental Analyst  
PacifiCorp  
825 NE Multnomah, Suite 1800  
Portland, Oregon 97232

Subject: Final Air Discharge Permit for a Generator at the Swift Forest Camp Recreation Area

Dear Mr. Truang:

A final determination to issue Air Discharge Permit 23-3578 has been completed for Air Discharge Permit (ADP) Application CO-1069 pursuant to Section 400-110(4) of the General Regulations for Air Pollution Sources of the Southwest Clean Air Agency (SWCAA). Public notice for ADP Application CO-1069 was published in the permit section of SWCAA's internet website on April 18, 2023. SWCAA did not receive a request for a public comment period in response to the public notice and has concluded that significant public interest does not exist for this determination. Therefore, a public comment period will not be provided for this permitting action. Electronic copies of ADP 23-3578 and the associated Technical Support Document are available for public review in the permit section of SWCAA's internet website (<http://www.swcleanair.gov/permits/adpfinal.asp>). Original copies are enclosed for your files.

This Air Discharge Permit may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt as provided in RCW 43.21B.

If you have any comments, or desire additional information, please contact me or Danny Phipps at (360) 574-3058, extension 124.

Sincerely,

Uri Papish  
Executive Director

UP:edp

Enclosure – Air Discharge Permit 23-3578 and Technical Support Document





**SWCAA**  
Southwest Clean Air Agency

**AIR DISCHARGE PERMIT**  
**23-3578**

**Issued: May 03, 2023**

PacifiCorp – Lewis River Hydroelectric Projects  
Multiple Locations

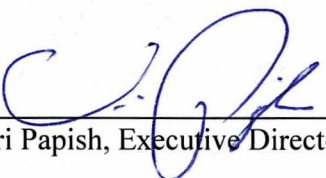
SWCAA ID - 1993

REVIEWED BY:

  
Clinton Lamoreaux, Chief Engineer



APPROVED BY:

  
Uri Papish, Executive Director

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**1. Equipment/Activity Identification**

<b>ID No.</b>	<b>Equipment/Activity</b>	<b>Control Measure/Equipment</b>
1	Lewis River Hatchery Downstream Emergency Generator Engine	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 100$ hr/yr + emergency usage)
2	Lewis River Hatchery Upstream Emergency Generator Engine	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 100$ hr/yr + emergency usage) EPA Tier 1
3	Merwin Dam Emergency Generator Engine	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 100$ hr/yr + emergency usage)
4	Swift #1 Dam FSC Emergency Generator Engine	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 100$ hr/yr + emergency usage) EPA Tier 2
5	Woodland Release Ponds Emergency Generator Engine	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 100$ hr/yr + emergency usage) EPA Tier 3
6	Merwin Headquarters Emergency Generator Engine	Low ash fuel (propane) Limited operation - ( $\leq 100$ hr/yr + emergency usage)
7	Speelyai Hatchery Emergency Generator Engine	Low ash fuel (propane) Limited operation - ( $\leq 100$ hr/yr + emergency usage)
8	Yale Dam Emergency Generator Engine	Low ash fuel (propane) Limited operation - ( $\leq 100$ hr/yr + emergency usage)
9	Swift #1 Dam Spillway Gate Emergency Generator Engine	Low ash fuel (propane) Limited operation - ( $\leq 100$ hr/yr + emergency usage)
10	Camp Creek Radio Tower Generator Engine	Low ash fuel (propane) Limited operation - ( $\leq 1,200$ hr/yr) EPA certification with 3-way catalyst
11	Marble Creek Radio Tower Generator Engine	Low ash fuel (propane) Limited operation - ( $\leq 1,200$ hr/yr) EPA certification with 3-way catalyst
12	Swift Forest Camp Generator Engine #1	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 1,200$ hr/yr) EPA Tier 4 Final
13	Swift Forest Camp Generator Engine #2	Ultra-low sulfur diesel ( $\leq 0.0015\%$ S) Limited operation - ( $\leq 1,200$ hr/yr) EPA Tier 4 Final
14	Merwin Hatchery Ozone Plant	1 ozone decomposer on headspace, 1 vertical stack from each of 2 stripping towers

## 2. Approval Conditions

The following tables detail the specific requirements of this permit. In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The permit requirement number is identified in the left-hand column. The text of the permit requirement is contained in the middle column. The emission unit, equipment, or activity to which the permit requirement applies is listed in the right-hand column.

Air Discharge Permit (ADP) 23-3578 supersedes ADP 22-3516 in its entirety.

### Emission Limits

Req. No.	Emission Limits	Equipment/ Activity ID No.																		
1.	<p>Emissions from non-emergency generator engines must not exceed:</p> <table border="1"> <thead> <tr> <th></th> <th>NO<sub>x</sub> (tpy)</th> <th>CO (tpy)</th> </tr> </thead> <tbody> <tr> <td>Generator Engine</td> <td>0.005</td> <td>0.042</td> </tr> <tr> <td>Camp Creek Radio Tower</td> <td>0.005</td> <td>0.042</td> </tr> <tr> <td>Marble Creek Radio Tower</td> <td>0.134</td> <td>0.001</td> </tr> <tr> <td>Swift Forest Camp #1</td> <td>0.134</td> <td>0.001</td> </tr> <tr> <td>Swift Forest Camp #2</td> <td>0.134</td> <td>0.001</td> </tr> </tbody> </table> <p>Annual emissions must be calculated from actual hours of operation consistent with the methodology found in Section 6 of the Technical Support Document (TSD) for this Permit.</p>		NO <sub>x</sub> (tpy)	CO (tpy)	Generator Engine	0.005	0.042	Camp Creek Radio Tower	0.005	0.042	Marble Creek Radio Tower	0.134	0.001	Swift Forest Camp #1	0.134	0.001	Swift Forest Camp #2	0.134	0.001	10-13
	NO <sub>x</sub> (tpy)	CO (tpy)																		
Generator Engine	0.005	0.042																		
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Swift Forest Camp #1	0.134	0.001																		
Swift Forest Camp #2	0.134	0.001																		
2.	<p>Visible emissions from the Lewis River Hatchery Downstream Emergency Generator Engine, the Lewis River Hatchery Upstream Emergency Generator Engine, the Merwin Dam Emergency Generator Engine, the Swift #1 Dam FSC Caterpillar Emergency Generator Engine, Swift Forest Camp Generator Engines, and the Woodland Release Ponds Emergency Generator Engine must not exceed five percent opacity for more than 3 minutes in any one hour period as determined in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400) except during startup. For the purposes of this requirement, the startup period ends when the earlier of the following operating events occurs:</p> <ul style="list-style-type: none"> <li>(a) The engine has reached normal operating temperature; or</li> <li>(b) The engine has been operating for 15 minutes.</li> </ul>	1-5, 12-13																		
3.	<p>Visible emissions from the propane-fired generator engines (Merwin Headquarters Emergency Generator Engine, Speelyai Hatchery Emergency Generator Engine, Yale Dam Emergency Generator Engine, Swift #1 Dam Spillway Gate Emergency Generator Engine, Camp Creek Radio Tower Generator Engine, and Marble Creek Radio Tower Generator Engine) must not exceed zero percent opacity for more than 3 minutes in any one hour period as determined in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).</p>	6-11																		

<b>Req. No.</b>	<b>Emission Limits</b>	<b>Equipment/ Activity ID No.</b>										
4.	Ozone emissions from the Merwin Hatchery Ozone Plant must not exceed:  <table border="0"> <thead> <tr> <th><u>Source</u></th> <th><u>Emission Limit</u></th> </tr> </thead> <tbody> <tr> <td>Ozone Decomposer</td> <td>0.10 lb/hr (1-hr avg)</td> </tr> <tr> <td></td> <td>0.46 tpy</td> </tr> <tr> <td>Ozone Stripping Towers (combined)</td> <td>0.21 lb/hr (1-hr avg)</td> </tr> <tr> <td></td> <td>0.93 tpy</td> </tr> </tbody> </table> <p>Annual emissions must be calculated using the methodology described in the TSD for this ADP. Unless better information is developed, annual emissions from the ozone decomposer must be calculated using the annual air usage, a 3% conversion of oxygen to ozone, a 50% transfer of ozone to the water, and a 95% control efficiency in the ozone decomposer. Annual emissions from the ozone stripping towers must be calculated using a mass balance approach with the assumption that all ozone residual measured in the water is emitted out the stacks of the ozone stripping towers.</p>	<u>Source</u>	<u>Emission Limit</u>	Ozone Decomposer	0.10 lb/hr (1-hr avg)		0.46 tpy	Ozone Stripping Towers (combined)	0.21 lb/hr (1-hr avg)		0.93 tpy	14
<u>Source</u>	<u>Emission Limit</u>											
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### Operating Limits and Requirements

<b>Req. No.</b>	<b>Operating Limits and Requirements</b>	<b>Equipment/ Activity ID No.</b>
5.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide
6.	The permittee must use recognized good practice and procedures to reduce odors to a reasonable minimum.	Facility-wide
7.	Each pollution control device/measure must be in use whenever the associated production equipment is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications and operated in a manner that minimizes emissions.	1-14
8.	Emission units identified in this Permit must be maintained and operated in total and continuous conformity with the conditions identified in this Permit. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this Permit, including directing the facility to cease operations until corrective action can be completed.	1-14
9.	Diesel-fired generator engines must only be fired on #2 diesel or better. The sulfur content of the fuel fired in the diesel engines must not exceed 0.0015% by weight (15 ppm). A fuel certification from the fuel supplier may be used to demonstrate compliance with this requirement.	1-5, 12-13
10.	Operation of the emergency generator engines must be limited to maintenance checks, readiness testing, and as necessary to provide emergency power.	1-9
11.	Operation of each emergency generator engine for maintenance checks and readiness testing must not exceed 100 hours per year. A nonresettable time totalizer must be maintained on each engine and used to measure hours of operation.	1-9

<b>Req. No.</b>	<b>Operating Limits and Requirements</b>	<b>Equipment/ Activity ID No.</b>
12.	Operation of the Camp Creek Radio Tower Generator Engine, Marble Creek Radio Tower Generator Engine, and the Swift Forest Camp Generator Engines must not exceed 1,200 hours per year each.	10-13
13.	The residual ozone concentration in the water immediately upstream of the stripping towers for the Merwin Hatchery Ozone Plant must not exceed 0.17 ppm (annual average).	14
14.	The Merwin Hatchery Ozone Stripping Tower and decomposer exhausts must be discharged vertically above the level of the adjacent buildings or structures. Any device that obstructs or prevents vertical discharge is prohibited.	14

### Monitoring and Recordkeeping Requirements

<b>Req. No.</b>	<b>Monitoring and Recordkeeping Requirements</b>	<b>Equipment/ Activity ID No.</b>
15.	With the exception of data logged by a computerized data acquisition system, each record required by this Permit must include the date and the name of the person making the record entry. If a control device or process is not operating during a specific time period, a record must be made to that effect.	Facility-wide
16.	All records required by this Permit must be kept for a minimum period of no less than three years and must be maintained in a form readily available for inspection by SWCAA representatives.	Facility-wide
17.	The following information must be collected, recorded at the intervals specified below, and readily available on-site for inspection: <ul style="list-style-type: none"> <li>(a) Hours of engine operation must be recorded for each calendar year;</li> <li>(b) Maintenance activities that may impact emissions from the generator engines or Merwin Hatchery Ozone Plant must be logged for each occurrence;</li> <li>(c) Sulfur content of diesel fuel burned in generator engines must be determined and recorded for each fuel delivery. A fuel supplier certification may be used in lieu of actual fuel testing;</li> <li>(d) Residual ozone concentration in the Merwin Hatchery Ozone Plant stripping tower influents must be determined and recorded at least once per week when in operation;</li> <li>(e) Quantity of water treated in the Merwin Hatchery Ozone Plant must be determined and recorded for each calendar year;</li> <li>(f) Quantity of air used in the Merwin Hatchery Ozone Plant must be determined and recorded for each calendar year. This may be accomplished by recording the air flow rate and pressure weekly during operation;</li> <li>(g) Excess emissions must be recorded for each occurrence; and</li> <li>(h) All air quality related complaints, including odor complaints, received by the permittee regarding activities controlled by the Permittee and the results of any subsequent investigation or corrective action must be recorded for each occurrence.</li> </ul>	1-14



**Emission Monitoring and Testing Requirements**

<b>Req. No.</b>	<b>Emission Monitoring and Testing Requirements</b>	<b>Equipment/ Activity ID No.</b>
18.	<p>The ozone concentration in the exhaust of the ozone decomposer at the Merwin Hatchery Ozone Plant must be measured at least once every 6 calendar months with a colorimetric detector tube or other measurement technique pre-approved by SWCAA. At least one test must be conducted between October 15<sup>th</sup> and November 30<sup>th</sup> of each year. If the measured concentration exceeds 200 ppm, the Permittee must either determine the mass emission rate within one week for comparison with the permitted emission limit or replace the ozone catalyst.</p> <p>The ozone concentration must be measured no later than one week after each catalyst replacement.</p>	14

**Reporting Requirements**

<b>Req. No.</b>	<b>Reporting Requirements</b>	<b>Equipment/ Activity ID No.</b>
19.	<p>All air quality related complaints received by the permittee must be reported to SWCAA within three days of receipt. Complaint reports must include the following information:</p> <ul style="list-style-type: none"> <li>(a) Date and time of the complaint;</li> <li>(b) Name of the complainant;</li> <li>(c) Nature of the complaint; and</li> <li>(d) Description of corrective action taken in response to complaint (if any).</li> </ul>	Facility-wide
20.	<p>Excess emissions must be reported to SWCAA as follows:</p> <ul style="list-style-type: none"> <li>(a) As soon as possible, but no later than 12 hours after discovery for emissions that represent a potential threat to human health or safety;</li> <li>(b) As soon as possible, but no later than 48 hours after discovery for emissions which the permittee wishes to claim as unavoidable pursuant to SWCAA 400-107(1); and</li> <li>(c) No later than 30 days after the end of the month of discovery for all other excess emissions.</li> </ul>	Facility-wide
21.	<p>The following emissions related records must be reported to SWCAA by March 15<sup>th</sup> for the previous calendar year:</p> <ul style="list-style-type: none"> <li>(a) Hours of operation for each generator engine;</li> <li>(b) Average residual ozone concentration in the Merwin Hatchery Ozone Plant stripping tower influents;</li> <li>(c) Quantity of water treated in the Merwin Hatchery Ozone Plant; and</li> <li>(d) Quantity of air used in the Merwin Hatchery Ozone Plant.</li> </ul>	1-14
22.	<p>Air emissions of criteria air pollutants, volatile organic compounds, toxic air pollutants (TAPs), and hazardous air pollutants (HAPs) must be reported annually to SWCAA by March 15<sup>th</sup> for the previous calendar year.</p>	1-14

### 3. General Provisions

Req. No.	General Provisions
A.	For the purpose of ensuring compliance with this ADP, duly authorized representatives of the Southwest Clean Air Agency must be permitted access to the Permittee's premises and the facilities being constructed, owned, operated and/or maintained by the Permittee for the purpose of inspecting said facilities. These inspections are required to determine the status of compliance with this ADP and applicable regulations and to perform or require such tests as may be deemed necessary.
B.	The provisions, terms, and conditions of this ADP bind the Permittee, its officers, directors, agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting under or for the Permittee.
C.	The requirements of this ADP survive any transfer of ownership of the source or any portion thereof.
D.	This ADP must be posted conspicuously at or be readily available near the source.
E.	This ADP will be invalidated, in whole or in part, if construction or installation of any new or modified equipment has not commenced within eighteen (18) months from date of issuance, if construction is discontinued for a period of eighteen (18) months or more without prior SWCAA approval, or if construction is not completed within a reasonable time.
F.	This ADP does not supersede requirements of other agencies with jurisdiction and further, this ADP does not relieve the Permittee of any requirements of any other governmental agency. In addition to this ADP, the Permittee may be required to obtain permits or approvals from other agencies with jurisdiction.
G.	Compliance with the terms of this ADP does not relieve the Permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70A.15, Title 173 WAC or any other applicable emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.
H.	If any provision of this ADP is held to be invalid, all unaffected provisions of the ADP will remain in effect and be enforceable.
I.	No change in this ADP will be made or be effective except as may be specifically set forth by written order of the Southwest Clean Air Agency upon written application by the Permittee for the relief sought.
J.	The Southwest Clean Air Agency may, in accordance with RCW 70A.15, impose such conditions as are reasonably necessary to assure the maintenance of compliance with the terms of this ADP, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.