For renewal of the General Permit for discharge of Non-Contact Cooling Water, Cooling Tower Blowdown, and Boiler Blowdown, Permit Number ARG250000.

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1.1 Background

Under 40 CFR 122.28, general permits may be written to cover categories of point sources having common elements, such as facilities that involve the same or substantially similar types of operations, that discharge the same types of wastes, or that are more appropriately regulated by a general permit. Given the number of non-contact cooling water, cooling tower blowdown, and boiler blowdown dischargers requiring NPDES permit coverage, the ADEQ has elected to renew the ARG250000 General Permit.

The previous permit became effective on December 1, 2012, and will expire on November 30, 2017.

1.2 Proposed Changes to the Renewal Permit

1.2.1 Limit on Change of Receiving Stream Temperature

Reg. 2.502 states that “Heat shall not be added to any waterbody in excess of the amount that will elevate the natural temperature, outside the mixing zone, by more than 5°F (2.8°C) based upon the monthly average of the maximum daily temperatures measured at mid-depth or three feet (whichever is less) in streams, lakes or reservoirs.”
The previous permit did not specify that the change in temperature limit is based on the monthly average of the daily temperatures measured at mid-depth or three feet, whichever is less. The renewal permit has been modified to more accurately reflect the requirements of Reg. 2.502.

1.3 Permit Coverage

This general permit authorizes facilities to discharge non-contact cooling water, cooling tower blowdown, and boiler blowdown wastewater to the Waters of the State except facilities which are excluded in Part 1.2.2 of the general permit. If a treatment system is proposed the applicant must provide ADEQ with approvable plans and specifications and be in receipt of a state construction permit prior to being considered eligible for coverage herein.

1.4 Notice of Intent (NOI)

Dischargers seeking to be covered by the general permit must submit a written Notice of Intent that meets the criteria in 40 CFR 122.21. All deadlines for submission have been established to provide staff with sufficient time to review and process all requests for coverage.

1.5 Individual Permits

The Director of ADEQ may consider the issuance of individual permits according to the criteria in 40 CFR 122.28(b) (3).

1.6 Water Quality Requirements

In accordance with 40 CFR 122.44(d) the permit is required to include any requirements necessary to achieve State Water Quality Standards as established under Section 303 of the Clean Water Act.

1.7 Permit Limits and Monitoring Basis

The wastewater from non-contact cooling water, cooling tower blowdown, and boiler blowdown wastewater may contain a variety of pollutants. Final effluent limitations in this general permit were established using Best Engineering Judgment pursuant to 40 CFR 125.3, and are consistent with the requirements of 40 CFR 122.44(d) and APCEC Regulation No. 2. Limitations have been placed on the following pollutants when present in discharges from non-contact cooling water, cooling tower blowdown, and boiler blowdown wastewater:
### Effluent Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Discharge Limitations</th>
<th>Monitoring Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monthly Avg.</td>
<td>Daily Max</td>
</tr>
<tr>
<td><strong>Flow (MGD)</strong></td>
<td>N/A</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Chemical Oxygen Demand (COD)</strong></td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total Suspended Solids (TSS)</strong></td>
<td>35</td>
<td>53</td>
</tr>
<tr>
<td><strong>Oil and Grease (O&amp;G)</strong></td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Minimum: 6.0 s.u.</td>
<td>Maximum: 9.0 s.u.</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>See table below for Outfall Type, Ecoregion, and Maximum Limit</td>
<td>Twice/month</td>
</tr>
</tbody>
</table>

#### Outfall Type and Ecoregion

<table>
<thead>
<tr>
<th>Outfall Type</th>
<th>Ecoregion</th>
<th>Temperature Limit, °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Ozark Highlands</td>
<td>84.2</td>
</tr>
<tr>
<td>002</td>
<td>Boston Mountains and Arkansas River Valley</td>
<td>87.8</td>
</tr>
<tr>
<td>003</td>
<td>Ouachita Mountains, Spring water Influenced Gulf Coastal, Typical Gulf Coastal, and Least-Altered Delta</td>
<td>86</td>
</tr>
<tr>
<td>004</td>
<td>Channel-Altered Delta, White River (Dam #1 to mouth), St. Francis River, Mississippi River, Arkansas River, Ouachita River (Little Missouri River to state line), Red River, and Lakes and Reservoirs</td>
<td>89.6</td>
</tr>
<tr>
<td>005</td>
<td>Trout Waters</td>
<td>68</td>
</tr>
</tbody>
</table>

1.7.1 **COD and TSS**

The technology-based limits for COD and TSS have been based on Best Engineering Judgment of Permit Writer and Arkansas individual NPDES Permit for similar type of discharges. The technology-based limits are judged to represent the level of treatment attainable through the application of the best conventional pollutant control technology (BCT) and best available technology economically achievable (BAT).

1.7.2 **Oil and Grease (O&G)**

The water quality-based limits for O&G have been based on the Arkansas Water Quality Standards (AWQS), APCEC Regulation No. 2, Chapter 5, Reg. 2.510 and are judged to represent the level of treatment attainable through the application of the best conventional pollutant control technology (BCT).
1.7.3 **pH**

The water quality-based limits for pH have been based on Reg. 2.504 and are judged to represent the level of treatment attainable through the application of the best conventional pollutant control technology (BCT).

1.7.4 **Temperature**

The water quality-based limits for temperature have been based on Reg. 2.502 and are judged to represent the level of treatment attainable through the application of the available technology economically achievable (BAT).

1.7.5 **Ecoregion**

To determine which outfall (Ecoregion) applies to your discharge, see Appendix A of Reg. 2.

1.7.6 **Monitoring**

The monitoring requirements for all pollutants except flow have been set at grab samples taken twice/month. The monitoring requirements for flow have been set at instantaneous sample taken twice/week.

1.8 **Other Conditions**

1.8.1 **Geographic Area and Covered Facilities**

The general permit, when issued, will authorize discharges of non-contact cooling water, cooling tower blowdown, and boiler blowdown to receiving waters throughout the State of Arkansas. The permit will be applicable only to facilities which have direct discharges to Waters of the State as defined in 40 CFR 122.2 and are therefore subject to the requirements of Sections 301 and 402 of the Clean Water Act.

1.8.2 **Timing of Request**

All deadlines for requests to be covered under the general permit were designed in accordance with 40 CFR 122.28 (b) (2).

1.8.3 **Expiration Date**

In accordance with 40 CFR 122.46 (a), the general permit will expire 5 years from the effective date of the permit.
1.8.4 Standard Conditions

The conditions applicable to all NPDES permits under the provisions of 40 CFR 122.41 have been included in this general permit, as appropriate.

1.8 Monitoring and Reporting Requirements

In accordance with 40 CFR 122.41, permittees are required to report on a monthly basis. Reports must list the results of sampling and analysis on a Discharge Monitoring Report to be submitted via NetDMR. Information on obtaining a NetDMR account may be obtained by calling the Enforcement Branch of the Office of Water Quality at (501) 682-0638.

Reports are required to be submitted by the 25th day of the month following the reporting period. The first report will be due at the end of the reporting period following the date this general permit becomes applicable to the permittee. Oral 24-hour reporting is required for any by-pass or upset or any noncompliance which may endanger health or the environment. Unless specifically waived by the Director, written reports must be provided within 5 days of the above occurrences.

1.9 Economic Impact

The only change to the permit involves the clarification of the limit on the change in temperature of the receiving stream. The change is necessary to accurately reflect the requirements of Reg. 2.502. This permit does not place any additional undue burden on any private business entity, large or small. It does not restrict any opportunities that are available to any small businesses. The inspection and control requirements are set at a level to protect water quality while minimizing the resources required for compliance.

The permit fee of $200 is allowed by Arkansas Pollution Control and Ecology Commission Regulation No. 9.

The permittee, if a corporation or LLC, is required to submit documentation that the corporation is registered and in good standing with the Secretary of State in Arkansas as well as the state of origin. This may require a small fee be submitted to the Secretary of State for states outside of Arkansas. The Arkansas Secretary of State does not currently charge a fee for this information.

1.10 Sources

1.12.1 40 CFR 122
1.12.2 40 CFR 124
1.12.3 40 CFR 136
1.12.4  APCEC Reg. No. 2
1.12.5  APCEC Reg. No. 6
1.12.6  APCEC Reg. No. 8
1.12.7  APCEC Reg. No. 9
1.12.8  ARG250000 existing permit
1.12.9  ARG550000
1.12.10 Ark. Code Ann. § 8-4-203(m)
1.12.11 Clean Water Act
1.12.12 Discharge Monitoring Reports (DMRs)