Idaho Department of Environmental Quality

Draft §401 Water Quality Certification

March 29, 2018

NPDES Permit Number(s): Hydroelectric Generating Facilities General Permit IDG360000

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NPDES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced permit and associated fact sheet, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

It is DEQ's understanding that the Environmental Protection Agency (EPA) does not intend to cover facilities in the Hydroelectric Generating Facilities General Permit (GP) that have a cumulative design intake flow of greater than 2 million gallons per day (mgd) and that use more than 25% of water withdrawn (cooling water purposes only) on an average monthly basis (refer to Part I.C of the Permit). In addition, the GP only addresses wastewater discharged from outfalls located at the base of the hydroelectric facilities. The only discharges that are authorized under this GP are:

- Cooling water discharge;
- Equipment and floor drain discharges;
- Equipment and facility maintenance-related water discharges;
- Equipment and facility maintenance-related water during flood/high water events and equipment related backwash strainer water discharges; and
- Any combination of these discharges.

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Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The main wastewaters discharged through outfalls in hydroelectric generating facilities include cooling water, equipment and floor drain water, equipment backwash strainer water, and equipment and facility maintenance waters from the hydroelectric facility. EPA has identified the pollutants of concern associated with these wastewaters to be oil and grease, pH, and temperature (excess heat). Effluent limits have been developed for oil and grease and pH. No effluent limits are proposed for temperature, although monitoring is required.

Since backwash water contains suspended solids that accumulate on intake screens prior to water entering the facility, EPA concluded that any total suspended solids (TSS) present in a facilities' discharge backwash water is naturally occurring and not a contaminate that resulted from plant operations. Therefore, the permit does not include effluent limitations or monitoring requirements for TSS.

Receiving Water Body Level of Protection

All waters in Idaho that receive discharges authorized under the Hydroelectric Generating Facilities GP will receive, at minimum, Tier I antidegradation protection because Idaho's antidegradation policy applies to all waters of the state. Water bodies that fully support their aquatic life or recreational uses are considered to be *high quality waters* and will receive Tier II

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antidegradation protection, in addition to Tier I protection. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs) designated, it is possible for a water body to be designated as an ORW during the life of the Hydroelectric Generating Facilities GP. Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, persons filing a Notice of Intent (NOI) for coverage under this general permit must use the most recent EPA-approved Integrated Report, available on Idaho DEQ's website: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage. If a water body is unassessed, the applicant is directed to contact DEQ for assistance in filing the NOI.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a total maximum daily load (TMDL) has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired", for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. However, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a healthy, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.

Water bodies may appear in both Category 4 and 5, for different causes of impairment. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, please contact your nearest DEQ regional office or the State Office (Table 1).

Table 1. Idaho DEQ Regional and State Office Contacts

Regional and State Office	*Address*	*Phone Number*	*Email*
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	june.bergquist@deq.idaho.gov

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Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	mark.sellet@deq.idaho.gov
Pocatello	444 Hospital Way, #300 Pocatello 83201	208-236-6160	lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls 83301	208-736-2190	kiley.mulholland@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	loren.moore@deq.idaho.gov

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires a demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The narrative and numeric criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a TMDL must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations (WLAs) for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL. A permit with effluent limitations consistent with TMDL wasteload allocations will provide the level of water quality necessary to support existing and designated uses and therefore satisfies Tier I antidegradation requirements.

Where waters of the State are already not supporting beneficial uses due to elevated temperature, and there is no temperature WLA in place for the hydroelectric generating facility, further thermal loading will violate Idaho WQS (IDAPA 58.01.02.055; IDAPA 58.01.02.080). Under these circumstances, DEQ does not have reasonable assurance of compliance. Therefore, as a condition of receiving coverage under the GP, DEQ requires that hydroelectric generating facilities discharging to waters impaired by temperature but without a WLA submit continuous temperature monitoring data (May – Nov) along with their NOI to demonstrate that their discharge does not violate thermal WQS. Moreover, the collection of this data will assist DEQ in the establishment of temperature WLAs for incorporation into TMDLs.

Based on data gathered from similar facilities' monitoring reports in neighboring states, EPA believes that temperature discharges will not cause an exceedance of DEQ's temperature criteria. However, to be sure, EPA is requiring continuous temperature monitoring on certain discharges to determine if an effluent limit is necessary when the GP is up for renewal five years after it is issued (Part III of the Permit). Any combination of the following discharges must be monitored for temperature: equipment-related cooling water, equipment and floor drain water, maintenance-related water, maintenance-related water from flood/high water events and for equipment related backwash strainer water.

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For waters of the State that are not supporting beneficial uses due to excess oil and grease and/or pH, DEQ has reasonable assurance that Idaho WQS will be met based on the conditions established in the Permit. According to Part IV.B.5 of the Permit, establishing and implementing specific Best Management Practices (BMP) or other measures will prevent oil and grease from entering a water body. As for pH, the effluent limits established in the Permit meet Idaho WQS.

As a condition of the general permit (Part IV.B of Permit), applicants will be required to develop and implement a BMP Plan to minimize or eliminate generation and potential release of pollutants from the facility to waters of the United States as well as an annual self-certification report demonstrating compliance with the plan. In addition, to maintain the existing low TSS concentrations in the authorized discharges, the BMP Plan will include inspection and maintenance procedures with record keeping for the backwash strainer.

The effluent limitations, monitoring requirements, BMP requirements, and associated requirements contained in the Hydroelectric Generating Facilities GP, coupled with the conditions in this certification, ensure compliance with the narrative and numeric criteria in the WQS. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses and is in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high quality waters and are provided Tier II protection in addition to Tier I protection. Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development. For general permits, the Department conducts an antidegradation review, including any Tier II analysis, at the time at which GPs are certified (IDAPA 58.01.02.052.03).

For a new permit or license, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit or license (IDAPA 58.01.02.052.06.a).

Facilities operating prior to July 1, 2011 seeking coverage under this general permit are considered existing discharges under IDAPA 58.01.02.010.37. If the facility has not increased the discharge for which it is seeking coverage under this general permit from operations prior to July 1, 2011, then the discharge is not likely to cause significant degradation to the receiving water (IDAPA 58.01.02.052.03) and no further Tier II antidegradation analysis is necessary. DEQ has reasonable assurance that these existing facilities or discharges in Tier II waters are not causing degradation as long as the facilities have not changed the operation of the discharge activity from July 1, 2011 onward.

DEQ is requiring an individual NPDES permit and subsequent certification for any hydroelectric generating facilities discharging to a Tier II water body that did not discharge prior to the effectiveness of the Antidegradation Policy of July 1, 2011. Furthermore, except where an individual 401 Certification has previously been issued for the expansion or material modification of a facility, DEQ requires individual permitting and certification for facilities that have expanded (e.g. added turbines, increased pollutant discharge) or materially modified operations affecting the discharges covered under this GP since July 1, 2011. Instead, these

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facilities must seek an individual certification of the activity to ensure no lowering of water quality occurs on Tier II waters.

In addition, if the data submitted in the notice of intent or other readily available data suggests there may be reasonable potential to cause or contribute to violations of water quality standards, then EPA and/or the state may require the permittee to obtain an individual permit.

Given the above conditions, DEQ has determined that as long as permittees operate consistent with the terms of the NPDES permit and the requirements set forth in this certification, there is reasonable assurance that existing and designated beneficial uses will be protected and maintained and there will be no significant lowering of water quality in any high quality waters (IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.08).

Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). As mentioned previously, no water bodies in Idaho have been designated as ORWs.

DEQ does not have the required reasonable assurance that the Tier III protection for ORWs will be met. Therefore, DEQ denies certification for any activities authorized by the Hydroelectric Generating Facilities GP that may result in a discharge to an ORW.

As a condition of this certification, DEQ is requiring any applicant proposing to discharge to an ORW, should one become designated during the term of this permit, to obtain an individual NPDES permit from EPA and an individual water quality certification from the state. This condition will ensure compliance with Idaho's antidegradation provisions concerning ORWs.

Conditions of Certification

Intake Restrictions for Flow and Cooling Water

Hydroelectric generating facilities that use or propose to use one or more cooling water intake structures with a cumulative design intake flow of greater than 2 mgd or that use 25% or more of water withdrawn for cooling water purposes, on an average monthly basis, will be required to obtain an individual NPDES permit. Permits issued by EPA will require individual 401 Certification from DEQ.

Water Bodies Impaired due to Temperature

In order to be eligible for coverage under the GP, hydroelectric generating facilities discharging to temperature impaired water bodies with no wasteload allocation must present continuous temperature monitoring data, for the months of May – November, with the NOI submittal sufficient to assure that the discharge will not cause or contribute to exceedances of WQS for temperature.

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Continuous Temperature Monitoring

In addition to data collection requirements specified in Table 1 of the Permit, the permittee must measure the temperature at the intake/control gates and the flow at the facility's discharge to accurately calculate thermal loading to the receiving water body. Daily measurements must be collected for the months of June through September.

New Discharges or Expansion of an Existing Facility after July 1, 2011

New discharges to a water of the United States, including the expansion or material modification of existing facilities after July 1, 2011, discharging to a Tier II water body, will be required to obtain an individual NPDES permit. Individual permits issued by EPA will also require individual certification from DEQ. The exception to this condition would be if an individual 401 Certification has previously been issued for the expansion or material modification of a facility.

Best Management Practices

Best management practices must be designed, implemented, and maintained by the permittee to fully protect and maintain the beneficial uses of waters of the United States and to prevent exceedances of the state water quality standards.

Wasteload Allocation Compliance

If a hydroelectric generating facility becomes subject to load allocations as a result of an approved TMDL, or the facility is subject to established loads from an existing 401 Certification, then the permittee must seek individual permit coverage. Permits issued by EPA will require an individual 401 Certification from DEQ.

Outstanding Resource Waters

Any permittee proposing to discharge to an outstanding resource water is required to obtain an individual NPDES permit. Permits issued by EPA will require an individual 401 Certification from DEQ.

Reporting of Discharges Containing Hazardous Materials or Deleterious Material

All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in Table 2 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

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Table 2. Idaho DEQ Regional Contacts

Regional Office	*Toll Free Phone Number*	*Phone Number*
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	877-541-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

Other Conditions

This certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Loren Moore, DEQ State Office, at (208) 373-0158 or via email at loren.moore@deq.idaho.gov.

DRAFT

Barry N. Burnell
Water Quality Division Administrator

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