



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C. L. "Butch" Otter, Governor
Curt Fransen, Director

21 February 2014
Michael J. Lidgard
NPDES Permits Unit Manager
EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle WA 98101-3140

RE: Final 401 Certification of the City of American Falls, Idaho, NPDES Permit No. ID-002075-3.

Dear Mr. Lidgard:

The Pocatello Regional Office of the Idaho Department of Environmental Quality has reviewed the proposed final NPDES permit for the City of American Falls wastewater treatment facility. Section 401 of the Federal Clean Water Act requires that states issue certifications for activities which are authorized by a Federal permit and that may result in a discharge to surface waters. In Idaho, the Department of Environmental Quality (DEQ) is responsible for reviewing these activities and evaluating whether the activity will comply with Idaho Water Quality Standards, including any applicable water quality management plans (e.g., total maximum daily loads). A federal permit cannot be issued until DEQ has provided a certification or waived certification either expressly or by taking no action.

Attached under this cover please find the Final 401 Certification for NPDES Permit No. ID002075-3. Please call me at 208-236-6160 to discuss any concerns or questions regarding this final document.

Sincerely

A handwritten signature in blue ink that reads "Lynn Van Every". The signature is fluid and cursive.

Lynn Van Every
Regional Water Quality Manager

Cc: Bruce Olenick, Regional Administrator, Pocatello
Miranda Adams, 401 Program Coordinator, Boise



Idaho Department of Environmental Quality Final §401 Water Quality Certification

February 21, 2014

NPDES Permit Number(s): ID-002075-3, City of American Falls

Receiving Water Body: Snake River below American Falls Dam

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.

Antidegradation Review

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

- Tier 1 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 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier 2 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 3 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 1 protection for that use, unless specific circumstances warranting Tier 2 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 City of American Falls discharges the following pollutants of concern: BOD, TSS, *E. coli*, ammonia and phosphorus. Effluent limits have been developed for BOD₅, TSS, and *E. coli*. No effluent limits are proposed for ammonia and phosphorus. Previous permit limits for chlorine were removed as a result of changes in the treatment process being used at this facility.

Receiving Water Body Level of Protection

The City of American Falls discharges to the Snake River within the Lake Walcott Subbasin assessment unit (AU) ID17040209SK011_07 (Snake River – American Falls Reservoir Dam to Rock Creek). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation and domestic water supply. There is no available information indicating the presence of any existing beneficial aside from those that are already designated.

The cold water aquatic life use in the Snake River is fully supported. (2010 Integrated Report). The primary contact recreation beneficial use is also fully supported. As such, DEQ will provide Tier 2 protection, in addition to Tier 1 protection, for these beneficial uses (IDAPA 58.01.02.051.02; 58.01.02.051.01).

Protection and Maintenance of Existing Uses (Tier 1 Protection)

As noted above, a Tier 1 review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires 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 numeric and narrative criteria in the WQS are set at levels that ensure protection of designated beneficial uses. The effluent limitations and associated requirements contained in the City of American Falls permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations 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.

The EPA-approved *Lake Walcott Subbasin Assessment and Total Maximum Daily Load* (DEQ, 1999) established a wasteload allocation for total suspended solids. This wasteload allocation was designed to ensure the Snake River maintains the existing water quality necessary to support existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. The effluent limitations and associated requirements contained in the City of American Falls permit are set at levels that comply with this wasteload allocation.

In sum, the effluent limitations and associated requirements contained in the City of American Falls permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the wasteload allocations established in the *Lake Walcott TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Snake River in compliance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

High-Quality Waters (Tier 2 Protection)

The Snake River is considered high quality for cold water aquatic life, primary contact recreation and domestic water supply. As such, the water quality relevant to cold water aquatic life, primary contact recreation and domestic water supply uses of the Snake River must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to cold water aquatic life, primary contact recreation and domestic water supply uses of the Snake River (IDAPA 58.01.02.052.05). These include the following: BOD₅, TSS, *E. coli*, ammonia and total phosphorus. Effluent limits are set in the proposed and existing permit for these pollutants except ammonia and total phosphorus.

For a reissued permit or license, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed in the reissued permit or license (IDAPA 58.01.02.052.06.a). 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).

Pollutants with Limits in the Current and Proposed Permit

For pollutants that are currently limited and will have limits under the reissued permit, the current discharge quality is based on the limits in the current permit or license (IDAPA 58.01.02.052.06.a.i), and the future discharge quality is based on the proposed permit limits (IDAPA 58.01.02.052.06.a.ii). For the City of American Falls permit, this means determining the permit's effect on water quality based upon the limits for BOD₅, TSS, pH and *E. coli* in the current and proposed permits.

Table 1. Comparison of current and proposed permit limits for pollutants of concern.

Pollutant	Units	Current Permit			Proposed Permit			Change ^a
		Average Monthly Limit	Average Weekly Limit	Single Sample Limit	Average Monthly Limit	Average Weekly Limit	Single Sample Limit	
Pollutants with limits in both the current and proposed permit								
Five-Day BOD	mg/L	30	45		30	45		NC
	lb/day	225	338		225	338		
	% removal	85			85			
TSS	mg/L	30	45		30	45		NC
	lb/day	225	338		225	338		
	% removal	85			85			
pH	standard units	6.5–9.0 all times			6.5–9.0 all times			NC
<i>E. coli</i>	no./100 mL	126		406	126		406	NC
Total Residual Chlorine (final)	ug/L	120	210		UV *	UV*		*
	lb/day	0.9	1.6					
Pollutants with no limits in both the current and proposed permit								
Total Ammonia	mg/L			Report			Report	NC
Phosphorus**	mg/L			Report			Report	NC

*This treatment plant has switched over to ultraviolet disinfection, no effluent limit for chlorine needed.

**This assessment unit of the Snake River (American Falls Dam to Lake Walcott) is not impaired by phosphorus.

Pollutants with No Limits

There are two pollutants of concern, ammonia and phosphorus that currently are not limited and for which the proposed permit also contains no limit. For such pollutants, a change in water quality is determined by reviewing whether changes in production, treatment, or operation that will increase the discharge of these pollutants are likely (IDAPA 58.01.02.052.06.a.ii). With respect to these pollutants, there is no reason to believe they will be discharged in quantities greater than those discharged under the current permit and there is no reasonable potential to exceed water quality standards based on EPA's analysis. In addition there have been no significant changes to influent quality and the proposed treatment plant upgrades (membrane bioreactor technology) will increase treatment capacity and improved effluent quality and will not lead to an increased discharge of these pollutants. Because the proposed permit does not allow for any increased water quality impact from these pollutants, DEQ has concluded that the proposed permit should not cause a lowering of water quality for these non-limited pollutants. As such, the proposed permit should maintain the existing high water quality in Snake River.

In sum, DEQ concludes that this discharge permit complies with the Tier 2 provisions of Idaho's WQS (IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Mixing Zones

Pursuant to IDAPA 58.01.02.060, EPA conducted a Reasonable Potential to Exceed (RPTE) analysis for ammonia utilizing a mixing zone of 25% of the critical flow volumes of Snake

River. Based on this analysis, EPA found no reasonable potential to exceed water quality standards for ammonia in the receiving water body. Therefore, DEQ concludes that this permit is in compliance with Idaho's mixing zone policy.

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 Lynn Van Every, Pocatello Regional Office, (208) 236-6160 or via e-mail at lynn.vanevery@deq.idaho.gov.



Bruce Olenick
Regional Administrator
Pocatello Regional Office